GUVERNUL
REPUBLICII MOLDOVA

EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT

# ANNEX NO. 4

# THE MOLDOVA ROAD PROJECT V

**(DTM 45094)**

## THE TECHNICAL DESIGN STAGE

## THE DRAFT REPORT

## The Project's specific ESMP for reconstruction of the express road M1 located in the Hincesti and Nisporeni Districts

## Lot no. 2 (km 9+208 - km 38+800)

## REQUIREMENTS

**This Project is carried out by the Government of the Republic of Moldova, through the Ministry of Infrastructure and Regional Development and the National Road Administration, with the support of the EBRD.**

# Contents

## Executive Summary

In accordance with the Contract Agreement for Lot 2, signed by the JSC National Road Administration (the Employer) and the General Designer, Intexnauca SRL (the Consultant), the Consultant is responsible for developing the technical design of the section of the M1 road between the Romanian and Ukrainian borders (km 1.00 to 85.46) within Lot 2 (km 9+208 to km 38+800). During the design process, the Consultant shall also identify hazards and assess risks, establishing mitigation measures to control them in line with EBRD's PR no.1 Assessment and Management of Environmental and Social Impacts an.

This document provides a comprehensive project description and context, including details of the risk assessment procedure based on the EBRD's Performance Requirement No. 1 (Assessment and Management of Environmental and Social Risks and Impacts). It also includes information on applicable Moldovan technical laws relating to the design process, institutional roles and responsibilities, and the environmental and social baseline for Lot No. 2. Furthermore, it outlines significant environmental and social aspects that are likely to arise during construction and operation, and sets out the mitigation, monitoring and institutional measures that will be implemented to eliminate, offset or reduce adverse impacts to an acceptable level.

The Project's specific ESMP for Lot No. 2 will form part of the tender documentation. This document outlines the mitigation measures that the General Contractor will implement to manage residual environmental and social risks during construction. The supervision consultant (Engineer) will monitor compliance with this document's requirements to ensure that the project meets national and EBRD standards.

In order to ensure that residual risks are kept under control, the General Contractor will use the mitigation measures identified in this document to prepare its own environmental and social management plan (CESMP). This plan will then be integrated into the detailed on-site plan of works. This will allow the contractor to calculate the costs of the environmental protection and social impact mitigation measures that will be implemented during the project's construction phase.

Furthermore, this document establishes environmental and social requirements for the Employer the National Road Administration, during the operational and decommissioning phases. The objective is to emphasise economic growth, inclusion and sustainability. This is accomplished by implementing best international industrial practices and incorporating robust development plans to enhance environmental quality, community health and safety.

The Employer's proposed capacity-building measures will be considered during the operational and decommissioning phases. The objectives are twofold: to continuously improve road quality and safety, and to contribute to an improved level of traffic safety, as well as an overall improvement in environmental and social conditions.

# 1 SCOPE

The document presents the Project's specific Environmental and Social Management Plan for the rehabilitation process of the express national road M1 (Lot No. 2). The aim of the Plan is to maintain and promote resources efficiency, prevent pollution, conserve biodiversity and protect the cultural heritage on the construction site during the rehabilitation process of the expressway M1.

The present document stipulates the environmental and social criteria for controlling risks specific to the rehabilitation process and further operation and maintenance of the new road and purchased equipment.

The procedure shall be implemented by the General Contractor at the construction stage and the Employer at the operational stage by keeping under control identified specific residual risks.

# 2 NORMATIVE DOCUMENTS

The present document is developed based on following documents:

1. The Planning Town Urbanism Certificate[1] for Design no. 1 of February 14th 2025 issued by the Hincesti District Council
2. The Planning Town Urbanism Certificate[2] for Design no. 1 of August 13th 2024 issued by the Nisporeni District Council
3. The Environmental Permit[3] no. 24 of August 12th 2025 issued by the Environmental Agency for the Moldova Road Project V
4. Notice issued by the Ministry of Culture for the Moldova Road Project V
5. Notice issued by the National Archaeological Agency for the Moldova Road project V
6. The Pavement Survey Report 2024
7. The Topographical Survey Report 2024
8. The Geotechnical Report 2024
9. Hydrometeorological Report 2024
10. Culverts Inspection Report 2024
11. Adaptation to Climate Change Report 2024
12. The Technical Design no. and the verification Report of the Technical Design
13. ESAP of the Moldova Road Project V
14. Stakeholder Engagement Plan

[1] Source: https://hincesti.md/category/subdiviziunile/sectia-constructii-gospodarie-comunala-si-drumuri/
[2] Source: https://hincesti.md/category/subdiviziunile/sectia-constructii-gospodarie-comunala-si-drumuri/
[3] Source: https://www.andsa.md/acorduri-de-mediu/

# 3 TERMS, DEFINITIONS AND ACRONYMS

## 3.1 Terms and definitions

The terms used hereinafter have the same meaning attributed to them in normative references. For a better understanding of the present document and training of personnel, the following terms and definitions set forth in the above-mentioned standards are rendered to be more valuable:

**Audit**: is a systematic, independent and documented process to obtain Evidences of Audit and assess them objectively in order to determine the extent to which the audit criteria are complied with.

**Community workers**: people employed or engaged in providing community labor.

**Continuous Improvement**: repeated activity to increase the ability to comply with requirements.

**Corrective Action**: action taken to eliminate the cause of a Non-conformity detected or any other unwanted situation.

**Danger Identification**: the process of danger identification and definition of its characteristics.

**Danger**: an event or situation with a harmful potential expressed in injury, illness, damage to property, pollution at the workplace or a combination of these.

**Direct workers**: people employed or engaged directly by the Contractor to work specifically in relation to the project.

**Discrimination in employment:** is defined as any distinction, exclusion, or preference with respect to recruitment, hiring, firing, working conditions, or terms of employment made on the basis of personal characteristics unrelated to inherent job requirements that nullifies or impairs equality of opportunity or treatment in employment or occupation.

**Document**: information and its supporting medium. The medium can be paper, magnetic, electronic or optical computer disc, photograph or master sample, or a combination thereof.

**EHS Committee**: is any organization of workers for the purpose of furthering and defending the interests of workers with regard to working conditions and terms of employment.

**Environment:** surroundings relative to the facility, including the air, water, land, natural resources, flora, fauna, humans and the interrelation of all these elements.

**Environmental Aspect**: is the element of an organization's activities, products or services that may interact with the environment.

**Environmental Impact**: any change to the environment, harmful or beneficial, total or partial, that results from an organization's activities, products or services.

**Incident**: an event that generated an accident or may potentially lead to an accident.

**Indirect workers or contracted workers**: people employed or engaged through third parties to perform work related to core functions of the project, regardless of location.

**Management System**: is part of the general Management System, which covers the organizational structure, planning activities, liabilities, practices, procedures, processes and resources related to the elaboration, enforcement, realization, analysis and maintenance of the ESHS policy.

**Non-conformity**: non-compliance with a requirement.

NOTE: Prevention of pollution can include source reduction or elimination, process, product or service changes, efficient use of resources, material and energy substitution, reuse, recovery, recycling, reclamation and treatment.

**Objective**: refers to the general purpose, resulted from the policy, being pursued by the organization and quantified where possible.

**Occupational Health and Safety**: conditions and factors that have an impact on the health of employees, temporarily engaged personnel, subcontracted personnel, visitors or any other person being at the workplace.
**Other stakeholders** are those not directly affected by the project but that have an interest in it. These could include national and local authorities, neighbouring projects, and/or nongovernmental organizations.
**Parties Concerned**: a party or group concerned or affected by the organization's performance.
**Performance**: represents the quantifiable results of the Management System, related to the organization's control over its aspects and dangers, based on the policy, objectives and purposes.
**Personal Characteristic**: such as gender, race, nationality, ethnic, social and indigenous origin, religion or belief, disabilities, age, or sexual orientation.
**Policy**: general intents and purposes of a certain organization related to ESHS, as they are officially expressed by the top management.
**Prevention of pollution:** use of process, practices, techniques, materials, products, services or energy to avoid, reduce or control (separately or in combination) the creation, emission or discharge of any type of pollutant or waste, in order to reduce adverse environmental impacts.
**Primary supply workers**: people employed or engaged by the Borrower's primary suppliers.
**Procedure**: specified way to carry out an activity or a process. Procedure can be documented or not.
**Process**: set of correlated or interrelated activities, which turns the input elements into output elements.
**Record document**: stating results achieved or providing evidence of activities performed.
**Risk Assessment**: process of general risk impact assessment and decision as to the level of risk tolerance.
**Risk:** combination of probability of appearance and consequences of a certain dangerous event.
**Safety**: lack of any unacceptable risk of injury.
**Specific Objective**: refers to detailed performance requirement, quantified when possible, applied to the organization as a whole or to its certain part, which results out of general environmental objectives and which must be established and fulfilled in order to achieve the latter objectives.
**Stakeholders:** are defined as persons, groups or communities external to the core operations of a project who may be affected by the project or have interest in it. This may include individuals, businesses, communities, local government authorities, local nongovernmental and other institutions, and other interested or affected parties.
**Supply chain**: refers to materials, components, goods or products for use in on-going operations.
**Tolerable Risk**: refers to the risk reduced to a "tolerable" level that can be endured by the organization, taking into account its own legal obligations and its own ESHS Policy.
**Trafficking in Persons**: is defined as the recruitment, transportation, transfer, harbouring, or receipt of persons, by means of the threat or use of force or other forms of coercion, abduction, fraud, deception, abuse of power, or of a position of vulnerability, or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Women and children are particularly vulnerable to trafficking practices.
**Capacity-building**: is defined as the process of developing and strengthening the skills, instincts, abilities, processes and resources that organizations and communities need to survive, adapt, and thrive in a fast-changing world.

## 3.2 Acronyms

| | |
|---|---|
| DD | Detailed Design |
| EPI | Environmental Protection Inspectorate |
| ESHS | Environmental, Social, Health and Safety |
| ESIA | Environmental and Social Impact Assessment |
| ESMP | Environmental and Social Management Plan |
| EU | European Union |
| FS | Feasibility Study |
| GD | Government decision |
| CM | Complaint Mechanism |
| H&S | Health and Safety |
| ILO | International Labour Organization |
| ISO | International Standard Organization |
| LPA | Local Public Authority |
| MoIRD | Ministry of Infrastructure and Regional Development |
| NAA | National Archaeological Agency |
| NAPH | National Agency for Public Health |
| OHS | Occupational Health and Safety |
| O&M | Operation & Maintenance |
| PAI | Project Area of Influence |
| PPE | Personal Protective Equipment |
| PRs | Performance Requirements |
| RM | Republic of Moldova |
| SEP | Stakeholder Engagement Plan |
| TMP | Traffic Management Plan |

# 4 THE PROJECT CONTEXT

## 4.1 General data

On January 22nd 2024, the European Bank for Reconstruction and Development (EBRD)[4] and the Government of the Republic of Moldova[5] (the Borrower) signed the Loan Agreement for the Moldova Roads Rehabilitation Project V. The Borrower is the Republic of Moldova and is represented by the Ministry of Finance.

The facility will consist of a sovereign loan to the Borrower in the amount of up to EUR 150 million, tranched. The loan will finance the rehabilitation and widening of the M2 Chisinau ring road (section 2) and the purchase of specialized equipment and software for the Road Asset Management System (Tranche 1) and the rehabilitation of the M1 Chisinau to Leuseni road section (Tranche 2) (together the "Project").

The Project is of a strategic priority for the Republic of Moldova and will support the Government's efforts to halt the deterioration of the road network and ensure key road links are maintained to acceptable standards to facilitate economic growth, regional integration and connectivity by strengthening core transport links with a focus on extended TEN-T network.

The Project is aligned with the European Union's Economic and Investment Plan for Neighbourhood East and its post-2020 Eastern Partnership Priorities, is included in the Eastern Partnership TEN-T Investment Action Plan, and is consistent with the Solidarity Lanes approach by focussing on core corridors to ensure transportation of goods between Ukraine and the European Union.

The Borrower shall carry out the Project in accordance with the Project Implementation Plan furnished by the Borrower to EBRD (subject to any modifications to which EBRD may agree in writing) and cause the financing specified in the Financing Plan to be applied exclusively to the Project. The proceeds of the Loan shall be applied exclusively to the components of the Project to be financed (or co-financed as the case may be) by EBRD in accordance with the Procurement Plan.

## 4.2 Project Development Objective

The Project will facilitate Moldova's economic development and its physical integration by improving transit connections and corridors between its cities and between Moldova and neighbouring countries, including Ukraine and Romania. The Project will also improve the road infrastructure between cities and on key corridors/regional connections through the rehabilitation of the M2 Chisinau ring road (section 2) and the M1 Chisinau to Leuseni road section, which are in poor condition.

[4] Source: https://www.ebrd.com/home/work-with-us/projects/psd/54423.html
[5] Source: https://gov.md/index.php/en

## 4.3 Project Beneficiaries

The Project beneficiaries are:

- The Government of the Republic of Moldova[6];
- The Ministry of Finance[7]
- The Public Property Agency[8];
- The Ministry of Infrastructure and Regional Development[9];
- The Hincesti District[10] Council
- The community from the Republic of Moldova;
- The community from Romania and Ukraine and other countries.

## 4.4 Project Components

The Project consists of the following Parts:

**Part A:**

(i) Civil works: rehabilitation and widening of the M2 Chisinau ring road-section 2, comprising of approximately 7 km of road;

(ii) Supervision of civil works for rehabilitation and construction of the above road section to be provided by the Supervision Consultant;

(iii) Extension and upgrade, of the road asset management system; and

(iv) Contingencies to finance any cost overruns in relation to Part A.

**Part B:**

(i) Civil work: rehabilitation, of the M1 Chisinau to Leuseni road section, comprising of approximately 71 km of road;

(ii) Supervision of civil works for rehabilitation and construction of the above road section to be provided by the Supervision Consultant; and

(iii) Contingencies to finance any cost overruns in relation to Part B.

## 4.5 The Employer and PIU

The JSC National Road Administration is the Employer of the Moldova Road Project V. The Project aims to promote quality and safety, minimise the impact on the health and safety of the workforce and the community, and safeguard the environment. This will be achieved by having approved technical documents specific to the construction site in place, and by carrying out construction work without any complaints from the community or incidents or accidents on construction sites.

The Employer is responsible for ensuring that the Project's activities are carried out in accordance with the EBRD's Performance Requirements and the Republic of Moldova's applicable laws. This

[6] Source: https://gov.md/ro/autoritati-administrative-centrale
[7] Source: https://mf.gov.md/ro
[8] Source: https://app.gov.md/
[9] Source: https://midr.gov.md/portofoliu/transport
[10] Source: https://hincesti.md/

includes the obligation to observe appropriate environmental, health, safety, social and labour practices and standards.

## 4.6 The Technical Designer

The Employer (JSC National Road Administration) entered into a Service Contract with the Consultant (Technical Designer) Intexnauca[11] SRL for the development of the technical design for the M1 road sector, spanning from the Romanian border to Leușeni, Chisinau, and Dubasari, and continuing to the Ukrainian border (Lot 2: km 9 - km 39).

[11] Source: http://itn.md/ro_RO/

# 5 CHARACTERISTICS OF THE ROAD SECTOR LOCATED IN THE HINCESTI DISTRICT

## 5.1 General data

The design of the road sector km 9+208 - km 38+800 is the part of the national express road M1 Border with Romania - Leuseni - Chisinau - Dubasari - border with Ukraine. It is part of the connection corridor of several cities in the centre of the Republic of Moldova with Romania and Ukraine. Currently, the road is balanced and maintained by the JSC National Road Administration.

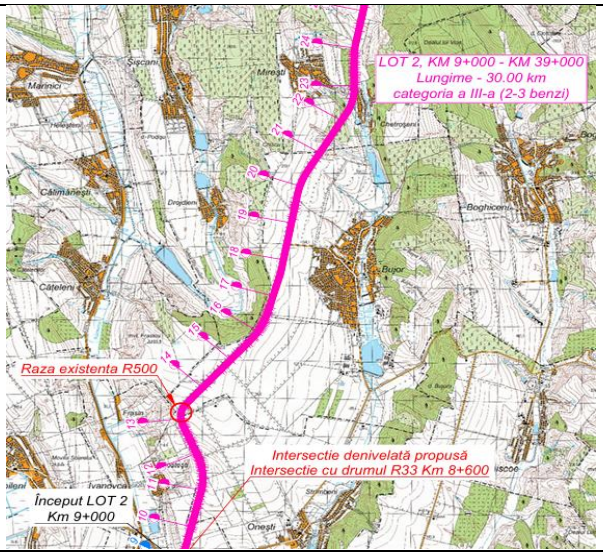



Fig. 5-1: The location of the Lot no.2 (km 9+208 – km 38+800) in the Hincesti District

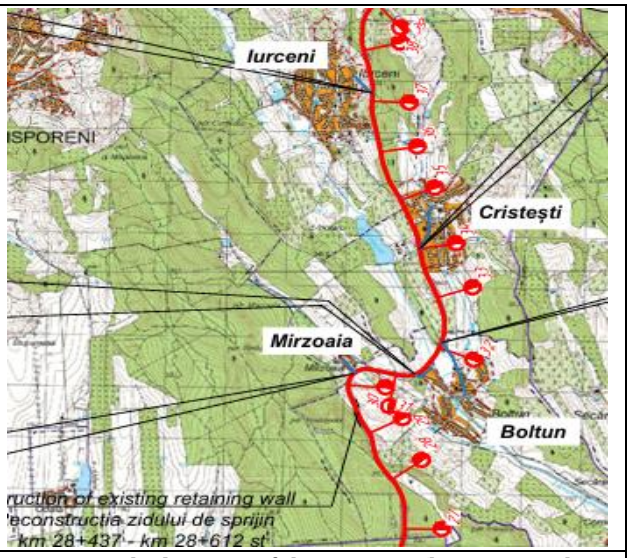



Fig. 5-2: The location of the Lot no.2 (km 9+208 – km 38+800) in the Nisporeni District

From a logistical standpoint, the road is of particular significance to the central geographical region of Moldova. Involvement in the repair of the national express road M1 would enhance the road's service quality and facilitate the transportation of passengers and goods. Furthermore, an extensive analysis of the central Moldova area reveals that the national express road M1 is the only direct access road to the border with Romania and Ukraine. The clause in question establishes the conditions for initiating the process of repair and modernisation of the road, taking into account the population's needs, satisfaction levels, right to safety, and the region's development criteria.

From a regional development perspective, the road forms the foundation for projects initiated by the Local Public Authorities. This initiative is poised to enhance societal well-being and satisfaction to a considerable extent.

It should be noted that the region concerned at the time of the design works was registered as commercial and tourist attractions, and as the exit to the countries of Europe. In conclusion, the repair of the road will facilitate trade, transport, industry and tourism. It will also involve developing

and strengthening access to agricultural markets in the region, which is a prerequisite for ensuring transport connections between the centre of the country and the countries of Europe.

## 5.2 Location of the sector from the Lot no. 2

The M1 road, which forms part of the border between Moldova and Ukraine, runs from Leuseni in the west of the country to Chisinau and Dubasari. It is located in the Hincesti District of Moldova and is 8.2 km long. It begins at the Leuseni customs exit, at PC 10+00, and ends at PC 92+00, about 500 m after the R33 Hincesti - Lăpușna - M1 intersection.


Fig. 5-3: The start of the Lot no.2 (km 9+208)

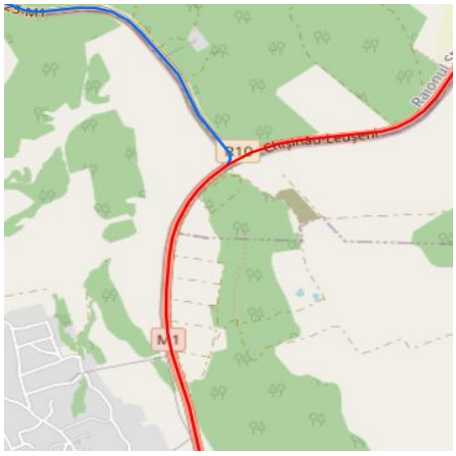



Fig. 5-4: The end of the Lot no. 2 (km 38+800)

The road runs in the close proximity of the following localities from the Hincesti District: (i) Bujor village, Chetroseni and the Mircesti villages.

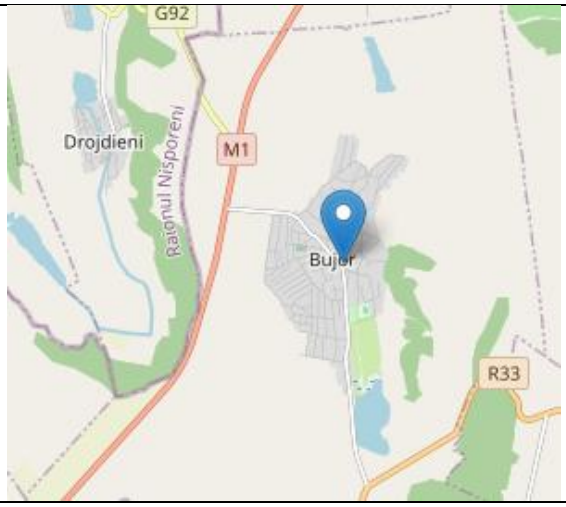



Fig. 5-5: The Bujor village[12] is located in the immediate vicinity of the road M1

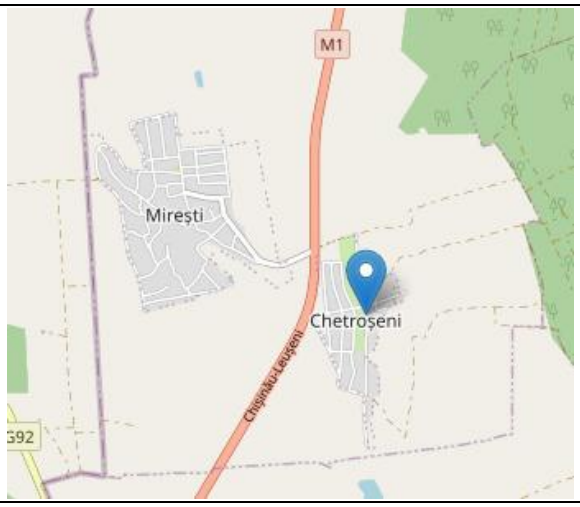



Fig. 5-6: The Chetroseni village is located in the immediate vicinity of the road M1

[12] Source: https://www.cadastru.md/ecadastru/f?p=100:1::::::

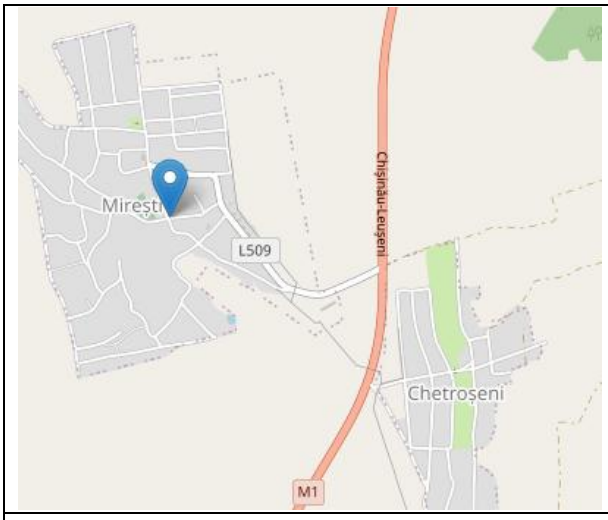



Fig. 5-7: The Miresti village is located near the express road M1 having access to M1 via the local road L509

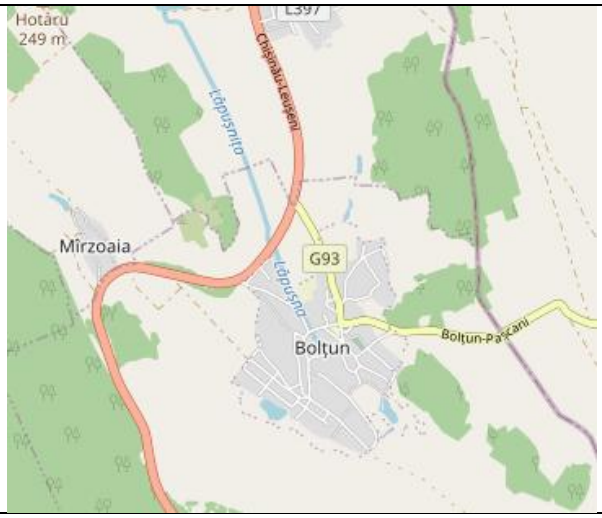



Fig. 5-8: Boltun village is strategically located near the M1 express road, with direct access to the M1 via the G93 road.

The road runs in the close proximity of the following localities from the Nisporeni District: (i) Boltun, Cristesti and Iurceni villages.

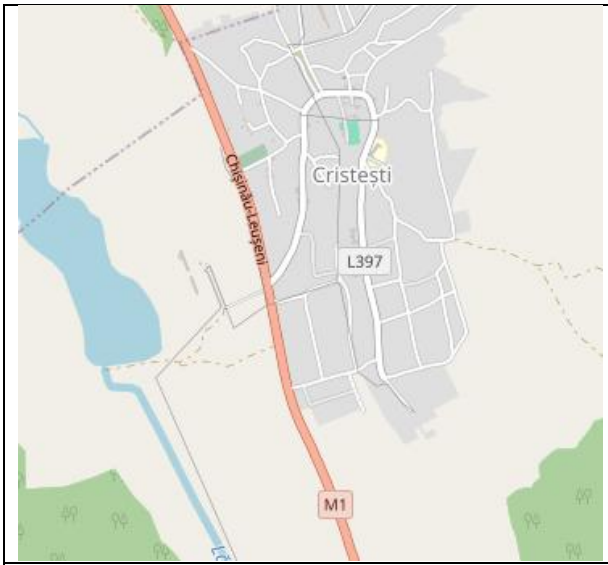



Fig. 5-9: The Cristesti Village is located near the express road M1 with direct access to M1 via the local road L397

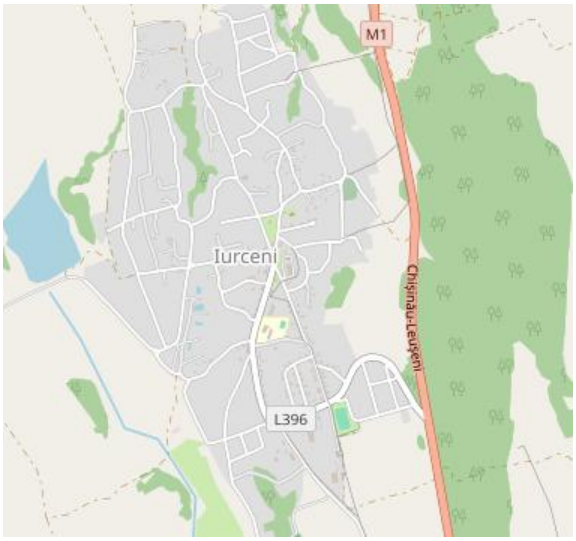



Fig. 5-10: The Iurceni village is strategically located near the M1 express road, with direct access to the M1 via the local road L396

At the junction 9+208 to 38+800 on the express road M1, there are connections with the following regional and local roads:

- L529 - The local road connects the national road R33 (Bujor village) with the M1 highway.
- G92 - This road connects the localities of Marinici and Șișcani in the Nisporeni district, thereby linking the G91 road and the M1 route,

- L509 - connects the village of the Mirești village with the national express road M1
- G93 - connects the M1 national road with the villages Bolțun, Pașcani, Lăpușna, and ends at the intersection with the R33 road. It serves the central part of the country, facilitating access to the south-west of the Hîncești District.
- L397 – connects the M1 national road with the Cristesti village from the Nisporeni District and is in the list of local public roads of district interest
- L396 - connects the M1 national road with the Iurceni village from the Nisporeni District and is in the list of local public roads of district interest.

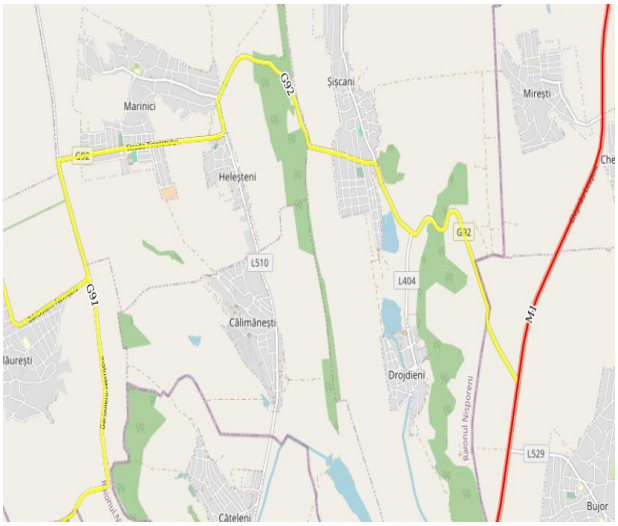



Fig. 5-11: The connection of the express road M1 with regional road G92 and G91 the Ungheni Municipality

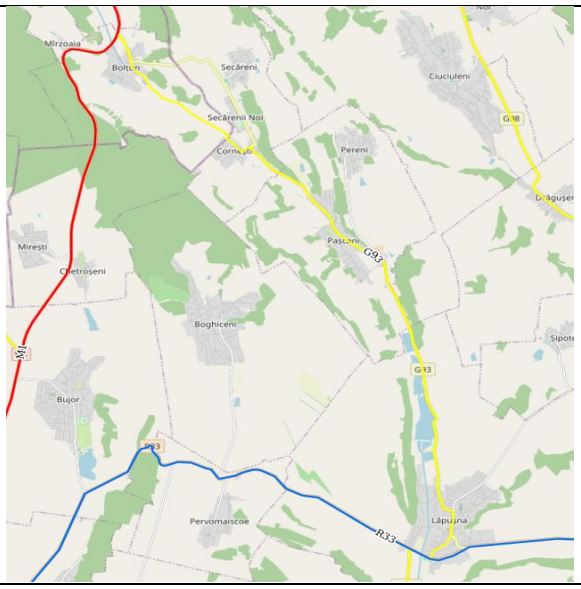



Fig. 5-12: The connection of the express road M1 with regional road G93 and R33

The regional road G92 connect the express road M1 with the Ungheni Municipality via the regional road G 91 and the regional road G93 connect M1 with the Hincesti District.

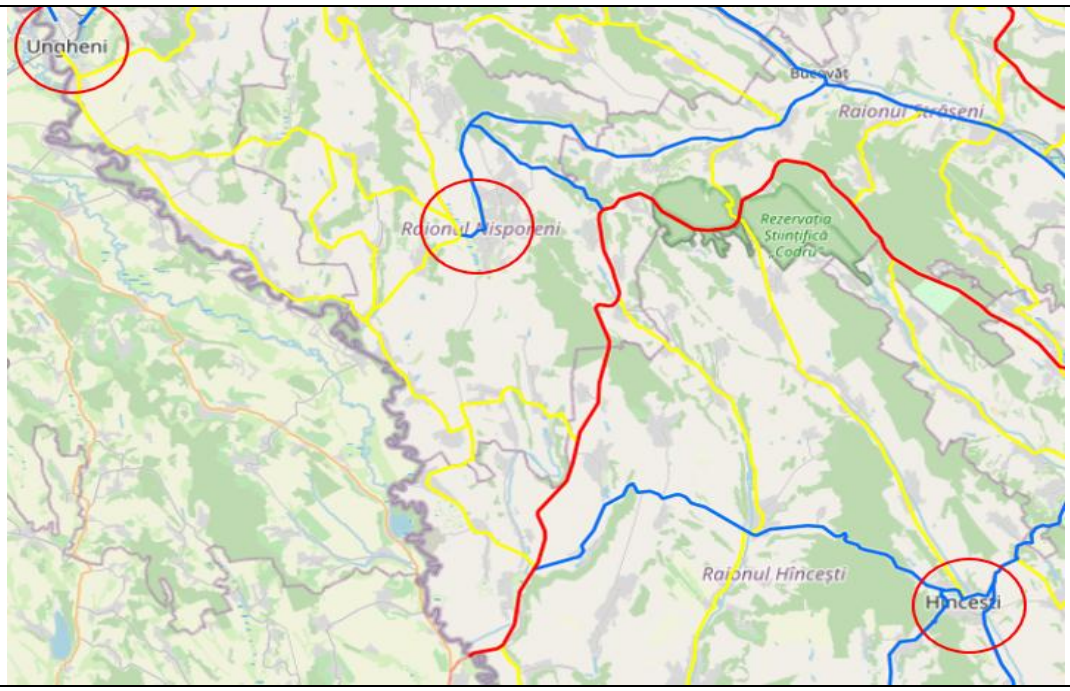



Fig. 5-13: The connection of the road M1 with the regional roads G92/G91, G93 of the Ungheni, Nisporeni and Hincesti Districts

## 5.3 The existing situation on the sector Lot no.2

The M1 road is a key transit corridor that connects the western part of Europe to the Balkan countries. Constructed in the second half of the 1960s and early 1970s, the road initially featured two lanes of traffic and a concrete road surface. In 2007, during a reconstruction project, the concrete slabs were overlaid with a layer of asphalt. Additionally, over the years, some sections of the M1 road have been expanded from two to three or four lanes.

The bituminous layers, which are laid on top of the concrete slabs, have aged, and local repairs (e.g. clogging, fillings, replacement of the wear layer, repair of concrete slabs, etc.) only delay the repair or reconstruction, modernization of the road, which normally does not meet the needs of end users. Major repairs to the road have not been carried out since it was put into operation. The following defects of the road surface were identified:

**Longitudinal/transverse cracks –** the damage is caused by the reduction of the elasticity of the asphalt coating as a result of bitumen aging. Along the entire length of the road we have measured about 12,276 linear m of longitudinal cracks and about 17,881 m of transverse cracks (the average distance between the transverse cracks is ~ 4-5m);

**Tiles -** are defects that present themselves in the form of a network of longitudinal and transverse cracks with a side size of up to 5cm. About 14.7% of tiles are registered along the entire length of the road sector;

**Settlements -** are failures of the road complex generated by the phenomenon of freezing/thawing of the water infiltrated into the road system. As a result of this phenomenon, the bearing capacity of the road bed decreases, subsequently, the road system yields to the loads of road traffic (especially

heavy traffic) and these defects occur. Along the entire length of the road sector, about 10.1% of settlements or deformations are recorded;
**Plumbing -** is the area on which long-term repair measures of structural defects have been applied. The road sector registers about 9.9% of such defects;
**Edge breaks -** are defects that consist of breaking and dislocating the road surface at the edge of the roadway, recorded about 1.2%. The assessment of the state of degradation was carried out for each linear sector of 50m.

## 5.4 Proposed technical category for road M1

In accordance with the provisions of NCM D.02.01:2024 and the Design Theme, the geometric elements of the express road M1 in the plan were designed for technical category III (km 9+208 - km 38+800).

The design speed of the route outside the localities provided according to category III depending on the "low" relief, is 100 km/h, after the "hill" relief, it is 100 km/h. This is provided for by the technical category of the road designed in accordance with the data obtained in the context of traffic studies and depending on the conditions of the terrain. In order not to occupy additional private land, it was decided to design according to the "hill" relief function, with a design speed of 100 km/h, according to table 5-1.

Table 5-1: The technical category of roads and the speed depending on the terrain

| The technical category of roads | Designed speed in km/h in function the relief | | |
|---|---|---|---|
| | Flat terrain (meadow) | Hilly terrain | Accidental terrain |
| I | 140 | 120 | 100 |
| II | 120 | 100 | 80 |
| III | 100 | 80 | 60 |
| IV | 90 (80) | 70 (60) | 50 (40) |
| V | 60 | 40 | 30 |

The M1 road Lot no.2 (km 9+208 - km 38+800) is located entirely outside the built-up area of the Hincesti District and the Nisporeni District. According to the Planning Town Urban Certificates and the Technical Design, the beginning of Lot No. 2 (km 9+208) of the express road M1 is started after the junction with national republican road R33 and ends at km 38+800, before the intersection with national road R 10 to the Nisporeni Town.

Table 5-2: The main technical parameter for the designed road sector

| No. | Parameters of the road elements | Road of cat. II | Road of cat. III |
|---|---|---|---|
| 1 | Designed speed, km/h | 120/100/80 | 100/80/60 |
| 2 | Lane width, m | 3.5 | 3.5 |
| 3 | Number of lanes | 4 | 2 |
| 4 | Sidewalks width, m | 1.5 | 1.5 |
| 5 | Shoulders width, m | 3.0 | 2.0 |
| 6 | Width of the reinforced frame lane | 0.75 | 0.5 |

| | | | |
|---|---|---|---|
| 7 | The steepest longitudinal slope, the slope % | 40/50/60 | 50/60/65 |
| 8 | The smallest radius: | | |
| | - In the plan | 800/600/300 | 600/300/150 |
| | - convex, without separate strips, m | | 10000/5000/2500 |
| | - convex, with separate strips, m | 12000/6000/3000 | |
| | - concave, m | 5000/3000/2000 | 3000/2000/1500 |
| 9 | Minimum visibility distance: | | |
| | - without separate lane, m | | 280/230/140 |
| | - with separate lane, m | 230/140/100 | |
| 10 | Calculated loads for structures | LM1, LM2 | LM1, LM2 |

The road layout consists of 13 angles of deviation, with radii ranging from 600 to 4000 metres. The minimum radius of the curves in the layout is 600 meters, according to the design speed of 100 km/h.

The radius of the first curve in the plan was increased from the existing 300 meters to 600 meters, according to the design speed of 100 km/h. Other curves remained unchanged, as they comply with the standard for this category.

## 5.5 Proposed technical aspects for road rehabilitation

### 5.5.1 General aspects

The technical design outlines various types of works directly related to the repair of the road structure, works of art, and road accessories. The repair of the road structure includes the following works:

1. Milling of existing bituminous layers and demolition of the existing cement-concrete road structure
2. Excavation of the existing road system;
3. Execution of the backing (shape) layer;
4. Execution of the lower layer of foundation (draining);
5. Execution of the upper layer of foundation made of natural aggregates stabilized with cement;
6. Execution of the new cement concrete layer;
7. Execution of rainwater evacuation elements.

### 5.5.2 Milling of existing bituminous layers and demolition of the existing cement-concrete road structure

In order to repair the surface of the roadway, it is necessary that the bituminous layers, depending on the sectors specified in the project, are milled and stored for subsequent actions. It is important to note that the road is relatively long and that the differences between the existing bituminous layers are significant. This means that they will contain granular materials of different types and diameters, as well as a different binder content.

In this regard, it is recommended that the milled material be screened and sorted (if necessary) in order to meet the requirements and eliminate particles that could hinder the execution of subsequent

works. The material in the existing asphalt road surface will not correspond exactly to a certain granulometry, but will consist of more masked gravel in some places and smaller material in others.

The existing road surface will be milled to the specified depth on a minimum width of 1.5 m.
The process will be applied over the entire width of the traffic lane, and the cross-section of the newly obtained surface must be straight and smooth. For the road safety of public transport, a gradual and smooth transition from the milled asphalt lane and the existing road surface will be ensured.

Before the milled road is opened to traffic, all free particles of asphalt and other materials remaining on the surface will be liquidated. If the surface has potholes, they will be filled and/or covered with broken stone.

### 5.5.3 Excavation of the existing road system

The sectors with new construction provided in the design documentation will contain works that will perceive the excavation of the existing road system with the demolition of the old rigid ostrich and the execution of the new road system according to the adopted solutions. These works are complex and require a precise approach in terms of the types of work carried out and their volume. Likewise, these works provide for the presence of a larger number of machines per sector.

The described works include considerable changes on the horizontal and vertical of the route, on the road sectors with a high level of degradation, as well as for the sectors that will undergo changes in the plan and longitudinal profile of the road.

The milling and stripping of the existing layers of the road surface will be carried out in dry weather. It is recommended that milling and stripping will be done on small sectors, thus providing for the continuity of road traffic in cyclical conditions, without situations in which this process would be stopped. The entire sector for the construction of new road surfaces will be excavated up to the required level of the earthen foundation layer, and this foundation layer will be compacted up to the minimum necessary requirement provided by the approved technical design.

The construction of the new layers of road surface on such sectors will be done as soon as possible, in order to minimize the probability of water infiltration into the existing embankment of the road.
Only after the completion of the new layers, without the final layer (wear), another sector will be stripping.

### 5.5.4 Execution of the backing layer (shape)

After receiving the foundation layer from the earth, the existing cement-stabilized earthen layer will follow, which will be compacted with the help of vibrating cylinders or vibrating hob compactors. The layers after compaction must correspond to the dimensions specified in the design documentation, within tolerances of +0 to -35 mm.

### 5.5.5 Execution of the support layer (draining)

After receiving the form layer, the draining layer of ballast will follow, which will be compacted with the help of vibrating cylinders or vibrating hob compactors. The performance levels of the ballast layer after compaction must correspond to the dimensions specified in the design documentation, within the tolerances of +0 to -35 mm. The ballast layer must extend to the limits of the road embankments or to the rainwater drainage gutters.

### 5.5.6 Execution of the top layer of foundation (base)

The execution of the foundation layers made of natural aggregates (broken stone), stabilized with cement will be carried out according to the requirements of the norms in force. In this regard, the aim is to correctly execute the foundation layer made of broken stone mixture according to MS EN 14227-1. The execution dimensions of this layer after compaction must correspond to the dimensions specified in the design documentation, within the limits of tolerances of +0 to -35 mm. The compaction of the layer will be carried out with the help of vibrating cylinders. It will be made sure that the mixture presents an optimal humidity in order to obtain an expected result.

# 6 POLICY AND REGULATORY FRAMEWORKS

## 6.1 Applicable Policy and Regulations of the Republic of Moldova

The Association Agreement[13] between the European Union and the European Atomic Energy Community and their Member States and the Republic of Moldova was signed on June 27, 2014. The Agreement was ratified by the Parliament of the Republic of Moldova on July 2, 2014 and by the European Parliament on November 13, 2014.

Following the signature of the Agreement, the country committed to implement the relevant environmental legislation of the European Union into its national legal system by adopting or changing national legislation, regulations and procedures aiming at political association and economic integration with the EU. This Agreement includes binding provisions, regulatory norms and broader cooperation arrangements in all sectors of interest. Therefore, the EU directives have become directly relevant to all aspects of green city development and are discussed separately per sector and key issue. The achievement of commitments started with the adoption of the National Implementation Plan[14] of the EU-Moldova Association Agreement for 2014-2016.

The Republic of Moldova[15] signed the EU accession application on March 3, 2022 and was approved by EU Council on June 23, 2022.

### 6.1.2 Environmental Policy of the Republic of Moldova

**Development Strategy with reduced emissions of the Republic of Moldova until 2030[16]** is a strategic document that allows the Republic of Moldova to orient towards a low carbon economy and to achieve the targets mentioned the document "Intentional determined national contribution" through green sustainable development, based on the socio-economic priorities of the country's development.
Also, this Strategy supports the achievement of sustainable development objectives, providing a national strategic context to the mitigation efforts for which the country receives international support. The specific objective 1 of the Strategy is to reduce, until 2030, the GHG emissions from the energy sector by 74% (unconditional) and up to 82% (conditioned) compared to 1990 level.

**The national development strategy "European Moldova 2030"[17], the document that indicates the country's development directions in the next seven years, was approved in October, 2022 by the Parliament in the first reading.**

The project, presented to the deputies represents a long-term strategic vision, which adapts to the national context the priorities of the international commitments assumed by our country according

[13] Source: https://eur-lex.europa.eu/EN/legal-content/summary/association-agreement-with-moldova.html
[14] Government Decision no. 808/2014: https://www.legis.md/cautare/getResults?doc_id=88616&lang=ro#
[15] Source: https://neighbourhood-enlargement.ec.europa.eu/european-neighbourhood-policy/countries-region/moldova_en
[16] GD no. 1470/2016: https://www.legis.md/cautare/getResults?doc_id=129232&lang=ro#
[17] Law no. 315/2022 for the approval of the National Development Strategy "European Moldova 2030" (published in OM no. 409-410/2022)

to the Association Agreement and those deriving from the status of a candidate country for accession to the European Union.

The development objectives contained in the strategy reflect the aspirations of increasing the well-being of the people of the Republic of Moldova, improving the lives of citizens, Europeanizing state institutions, strengthening democracy, the rule of law and respect for human rights.

The document establishes ten general objectives, used to measure the quality of life at the level of the European Union. These are: increasing income from sustainable sources and mitigating inequalities; improving living conditions; guaranteeing relevant and quality education throughout life; raising the level of culture; improving the physical and mental health of the population; solid and inclusive social protection system; efficient, inclusive and transparent governance; fair, incorruptible and independent judiciary; peaceful and secure society; healthy environment. The project aims to achieve concrete indicators by 2030, for example – reducing absolute poverty by at least 50%. If GDP growth will be higher than the planned annual level of 5% until 2030, respectively.

The strategy will be the reference document in the process of developing the medium-term budgetary framework and defines, including, the strengthening of the resilience of the Republic of Moldova in the event of new crises. The document will also guide the assistance of development partners in relation to national development priorities and ensure better coordination of assistance projects.

**The National Mobility Strategy for 2023 - 2030**

The Government is developing the Mobility Strategy for 2023-2030 that defines the Government's policy in transport and transport infrastructure, in order to develop an accessible, sustainable, interoperable and safe transport system, in line with the provisions of the National Development Strategy "European Moldova 2030".

The Mobility Strategy aims to set the objectives that will ensure the sustainable development of the transport sector and an efficient management in order to improve the efficiency of passenger and cargo transport, improve the infrastructure, the connectivity of the strategic transport network of Moldova to international transport networks, especially the Trans- European Transport Network (TEN-T), with a minimal impact on environment.

**National Waste Management Strategy 2013-2027**[18] establishes the strategic vision of waste management until 2027 as an integrated system, economically efficient and ensuring protection of human health and environment. Inter alia, the Strategy aims to promote separate waste collection and treatment for each type of waste, particularly toxic and hazardous waste. The strategy provides general information regarding with construction and demolishing waste and conditions of its management.

[18] GD no 248/2013: https://www.legis.md/cautare/getResults?doc_id=114412&lang=ro#

### 6.1.3 Environmental assessment vetting process

#### 6.1.3.1 The Environmental impact assessment process for new the planned activity

In the event of any new planned activity, the Employer (initiator) is required to submit an application for the issuance of the environmental agreement to the Environment Agency. This application must be accompanied by information regarding the planned activity, based on a feasibility study. The application should be submitted using the one-stop shop, in accordance with the requirements of Law no. 86/2024 for ESIA.

The Environmental Agency will analyse the written application and issue a decision regarding compliance with the requirements of Annexes 1 and 2. Law No. 86/2014 implements Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (codified text) (OJ of the European Union L 26 of 28 January 2012), as amended by Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014, as well as the provisions of art. 6 para. (3) and (4) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Official Journal of the European Union L 206 of 22 July 1992), as amended by Directive 2013/17/EU of 13 May 2013.

#### 6.1.3.2 The risks assessment process during the design stage

The environmental vetting process is a procedure for the verification and checking of the technical package. This consists of the basic design and detailed design reports for the rehabilitation of the express road M1 (Lot no. 1), which were developed during the detailed design stage.

The State Authority will verify and check the detailed technical design package, including the project's specific ESMP and Labour Management Procedure (LMP). Before construction activity begins, the Beneficiary must submit the following documents to the Hincesti and Nisporeni District Councils for the purpose of receiving construction authorisation/permit:

- The Urbanism Certificate for Design issued by the Hincesti District and the Nisporeni District;
- The Basic Design and the Detailed Technical Design developed by the Consultant (Designer);
- The Verification Report of project technical documentation for construction;
- The Certificate for the company registration;
- The Contract of the author supervision signed by the Employer and designer;
- The final Project's specific ESMP, LPM, Code of Conduct, Consultation and Participation Plan and the Project's Complaint Mechanism for rehabilitation of the express road M1;
- The Environmental Permit issued by the Environmental Agency with Notice issued by the Ministry of Culture for protected monuments and Archaeological Certificates issued by the National Archaeological Agency.

The Hincesti and Nisporeni Districts shall issue the Construction Authorizations within 30 days for the construction process for rehabilitation works of the road M1.

### 6.1.4 Other applicable environmental and social regulations

The Republic of Moldova has a new legislative base, the majority of which has been harmonised with the EU's Acquis Communautaire in accordance with the Association Agreement. Please refer to the table below for details of some of the main laws related to the project proposal and activities that will be implemented.

**Table 6-1: Main national legal environmental and social acts relevant for design stage**

| Legal act | General overview | Relevancy with the Project |
|---|---|---|
| **Applicable Environmental Laws** | | |
| Environmental Protection[19] Law #1515/1993 | Establishes the basic legal framework for drafting special normative acts and instructions issues of environmental protection | Provides basic rules regarding air quality conditions, rights and duties of each actor with activities with potential impact to environment during the project life cycle |
| Environmental Impact Assessment[20] Law #86/2014 | The law transposed totally the Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment | This law is not relevant for proposed activities under the Component 1 and Component 2 as the proposed activities are not listed in the Annex 1 of this law |
| Green Spaces of the Urban and Rural Localities Law[21] #591/1999 | Law regulates relations in the field of development and protection of green spaces in urban & rural localities in order to ensure the right of everyone to a healthy and aesthetic environment | Regulates the identification and delineation of the green areas within the settlements' areas |
| The Water[22] Law #272/2012 | The Law partially transposed the EU Directive no. 91/271/CEE, 91/676 CEE, 2000/60/CE, 2006/7/CE, 2007/60/CE, 2008/105/CE and establishes the legal framework necessary for the water management, protection and use | It is relevant as it specifies the procedures for obtaining water authorizations |
| Land Code[23] #828/1991 | Establishes the relations and rights of land ownership and the basic requirements of land use and protection | It is or establishing the procedures, duties and obligations under administration of the land |
| Law[24] on State Supervision of Public Health #10/2009 | This law regulates the organization of the state supervision of public health, establishing general requirements to public health, the rights and obligations of physical persons and legal entities, procedure for the organization of system of the state supervision of public health. | It is relevant for the project and its stipulations need to be reflected in the ESA documents |
| The Urbanism and Construction Code[25] no. 434/2023 | The provisions of the Code are applied to construction and related facilities, hereinafter referred to as the building industry, in the design, construction and building, as well as in the stages of exploitation and interventions to existing buildings and post-utilization them, regardless of their form of ownership, destination, category and class or source of | The provisions are relevant to proposed activities and should be reflected ESA documents for all proposed civil work |

[19] Source: https://www.legis.md/cautare/getResults?doc_id=88192&lang=ro
[20] Source: https://www.legis.md/cautare/getResults?doc_id=139828&lang=ro#
[21] Source: https://www.legis.md/cautare/getResults?doc_id=141075&lang=ro#
[22] Source: https://www.legis.md/cautare/getResults?doc_id=144636&lang=ro#
[23] Source: https://www.legis.md/cautare/getResults?doc_id=139975&lang=ro#
[24] Source: https://www.legis.md/cautare/getResults?doc_id=142435&lang=ro#
[25] Source: https://www.legis.md/cautare/getResults?doc_id=141587&lang=ro#

| Legal act | General overview | Relevancy with the Project |
|---|---|---|
| | funding, in order to protect people's lives their goods, society and the environment | |
| Law[26] on access to information #148/2023 | This law shall govern the rights of access to information of public importance held by public authorities, with a view to exercising and protecting the public interest to know and attaining a free democratic order and an open society | This is relevant for ensuring disseminating information about implementation of the project and about potential ES impacts |
| Law[27] on Wastes #209/2016 | The Law transposed the Directive 2008/98/CE on Wastes regarding authorizing waste collecting, transportation, exploitation and disposal activities, etc. | This is relevant for ensuring the waste management at the level of each institution for the solid waste management, including hazardous ones |
| Law[28] on Industrial Emissions #227/2022 | The Law transposed the EU Directive 2010/75 on IPPC has the objective to prevent, reduce and as far as possible eliminate pollution arising from industrial activities in compliance with the 'polluter pays' principle and the principle of pollution prevention, etc. | The law is relevant and requires measures for reducing industrial emissions during the project life cycle to energy sector |
| Law[29] on occupational safety & health #186/2008 | The Law transposed the Directive 89 / 391 /EEC on the introduction of measures to encourage improvements in the safety and health of workers at work, etc. | The law is relevant and is mandatory to be followed during the project life cycle in order to protect workforce |
| Law[30] on the protection of archaeological heritage No. 218/2010 | The Law transposed the UNESCO and EU recommendations regarding protection of the heritage patrimony, as well as the protection of archaeological heritage, a component part of the national cultural heritage. | Relevant at the pre-design stage when is requested of the urban planning certificate for design in accordance with the Law relating to the authorization of executing the construction works No, 163/2010 |
| **Applicable Social Laws** | | |
| Law[31] on Social Inclusion of Persons with Disabilities #60/2012 | The law regulates the rights of persons with disabilities for their social inclusion, guaranteeing the possibility of their participation in all areas of life without discrimination, at a level identical to the other members of the society, having as a basis the respect of fundamental human rights and freedoms | The law is relevant and requires measures for ensuring the participation of person from socially vulnerable groups in the project activities during the project life cycle |
| Law[32] regarding the promotion of employment and unemployment insurance #105/2018 | The purpose of the law is to prevent and reduce unemployment and its social effects, reduce the risk of unemployment & ensure a high level of employment and adapting to the demands of the labour market | The law is important to ensure the rights of employees during the project life cycle |
| Law[33] on Social Services #123/2010 | The law establishes the general framework for the creation and functioning of the integrated system of social services, with the determination of the tasks and responsibilities of the central and local public administration authorities, of other legal and natural persons empowered to provide and provide | The provisions of the law are important for ensuring the quality of public services and respecting the interests of consumers |

[26] Source: https://www.legis.md/cautare/getResults?doc_id=137908&lang=ro
[27] Source: https://www.legis.md/cautare/getResults?doc_id=143643&lang=ro#
[28] Source: https://www.legis.md/cautare/getResults?doc_id=133705&lang=ro
[29] Source: https://www.legis.md/cautare/getResults?doc_id=142433&lang=ro#
[30] Source: https://www.legis.md/cautare/getResults?doc_id=143917&lang=ro#
[31] Source: https://www.legis.md/cautare/getResults?doc_id=139006&lang=ro#
[32] Source: https://www.legis.md/cautare/getResults?doc_id=139819&lang=ro#
[33] Source: https://www.legis.md/cautare/getResults?doc_id=141516&lang=ro#

| Legal act | General overview | Relevancy with the Project |
|---|---|---|
| | social services, as well as the protection of the rights of the beneficiaries of social services; | |
| Law[34] on ensuring equal opportunities between women and men # 5/2006 | The Law transposed the Directive 2004/113/CE implementing the principle of equal treatment between men and women in the access to and supply of goods and services | The provisions of the law are important for promoting women's interests in exercising their rights in labour relations during the project life cycle |
| Law[35] on Freedom of Expression # 64/2010 | This Law guarantees right to freedom of expression and regulates the balance between right to freedom of expression and defence of private and family life | This is relevant for ensuring disseminating information about implementation of the project and about potential ES impacts |
| Law[36] on Transparency in Decision Making # 239/2008 | The law refers to the transparency of information linked with the decision-making process and to the consultation of stakeholders when drafting decisions | This is relevant for ensuring disseminating information specific for the project life cycle |
| Administrative Code[37] of Republic of Moldova # 116/2018 | The Code establishes procedure for consideration of petitions of the RM citizens addressed to the relevant authorities/bodies for the purpose of ensuring protection of petitioners' rights and legitimate interests | This is relevant for ensuring for the early collection of information regarding the risks of non-compliance with ES standards |

### 6.1.5 The applicable national technical standards specific for development of the technical design

During the technical design development, the following standards were used:
1. NCM A. 07.02-2012 The procedure for elaboration, approval, approval and the framework content of the project documentation for constructions. Main requirements and provisions
2. NCM E 04.02:2014: Noise protection.
3. NCM A.07.06:2016 Construction design. Composition and content of the "Environmental Protection Plan" within the design documentation
4. NCM D.02.0L2024 „Design of public roads";
5. NCM D.02.03:2018 „Normative for the arrangement of level intersections";
6. NCM C.01.06-2014 „General safety requirements for construction objects in their use and accessibility for persons with disabilities"
7. NCM A.08.01:2016 „Organization of constructions";
8. NC M A.08.02:2014 „Occupational safety and health in construction".
9. CP A.09.04.2014 Management of construction and demolition waste (Part I and Part II)
10. CP D.02.11-2014 „Recommendations on the design of streets and roads in urban and rural localities
11. CP D .02.10-2016 „Road safety recommendations";
12. CP D .02.14-2013 „Rules on the investigation and evaluation of road conditions";
13. CP D .02.16-2012 „Assessment of the load-bearing capacity of lean road structures";
14. CP D.02.08-2014 „Sizing of Supple Road Structures";
15. CP L.01.01-2012 and CP L.01.06-2013 Instructions on the preparation of BoQ.

[34] Source: https://www.legis.md/cautare/getResults?doc_id=144448&lang=ro#
[35] Source: https://www.legis.md/cautare/getResults?doc_id=141515&lang=ro#
[36] Source: https://www.legis.md/cautare/getResults?doc_id=142655&lang=ro#
[37] Source: https://www.legis.md/cautare/getResults?doc_id=144471&lang=ro#

## 6.2 EBRD Environmental and Social Policy

### 6.2.1 The EBRD's Environmental and Social Policy

The European Bank for Reconstruction and Development (EBRD) is committed to promoting environmentally sound and sustainable development in all its activities, as outlined in the Agreement Establishing the EBRD. The Bank recognises that ES sustainability is a fundamental aspect of achieving outcomes that are consistent with its transition mandate.

The EBRD's risk assessment procedure, as outlined in Performance Requirement No. 1 (PR no. 1), stipulates the borrower's (client) responsibilities in identifying and assessing potential environmental and social (ES) risks and impacts associated with the project. The procedure also details the borrower's obligation to develop and implement an ESMS for the mitigation, management, monitoring and reporting of these risks and impacts.

The objectives of the risk assessment process are to:
- Identify and assess ES risks and impacts of and to the project
- Adopt a mitigation hierarchy approach to address ES risks and impacts from project activities on workers, affected communities and the environment
- Integrated human rights risks and impacts into the assessment process and mitigation process
- Implement an ESMS commensurate with the ES risks and impacts of the project in a manner consistent with the relevant ESRs (applicable standards for Moldova Road Project V), including monitoring and reporting provisions
- Require continuous improvement of the client's ES performances.

### 6.2.2 The scope of application of PR no.1 during the design process

The employer identified the relevant PRs (with the exception of standards PS no. 7 and PR no. 9) as part of the ES assessment process. They then established mitigation measures and managed them through the project assessment during the design, construction, operation, decommissioning or closure and reinstatement phases.

The EBRD adopted a comprehensive set of specific Performance Requirements (PRs) for key areas of environmental and social sustainability that projects are required to meet.
The PRs are as follows:
PR 1 Assessment and Management of Environmental and Social Risks and Impacts
PR 2 Labour and Working Conditions
PR 3 Resource Efficiency and Pollution Prevention and Control
PR 4 Health, Safety and Security
PR 5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
PR 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources
PR 7 Indigenous Peoples
PR 8 Cultural Heritage
PR 9 Financial Intermediaries

PR 10 Information Disclosure and Stakeholder Engagement

The EBRD's Performance Requirements applicable during the design stage of the Moldova Road Rehabilitation Project activities are summarized below.

**Table 6-1: Relevant EBRD's ESRs applicable for Lot no.2 of the Moldova Road Project V**

| Performance Requirements | Requirements | Applicability to the Project and establish measures and actions |
|---|---|---|
| PR 1 Assessment and Management of ES Risks and Impacts | Standard sets out measures and responsibilities for assessing impacts and risks, managing and monitoring ES risks associated with the Project's life cycle, in order to achieve ES outcomes consistent with requirements. | Standard is applicable for the design stage of the Lot no.2 |
| PR 2 Labor & Working Conditions | Standard sets out measures and responsibilities design to protect direct & indirect workforce specific for the Project's life cycle including labor-related risks. | Standard is applicable for the design stage for Lot no.2 |
| PR 3 Resource Efficiency, Pollution Prevention & Control | Standard sets out measures and responsibilities to address resource efficiency and pollution prevention and management throughout the project life cycle | Standard is applicable for the design stage for Lot no.2 |
| PR 4 Health, Safety and Security | Standard sets out measures and responsibilities to protect direct & indirect workforce and OHS risks. | Standard is applicable for the design stage for Lot no.2 |
| PR 5 Land Acquisition, Restrictions on Land Use & Involuntary Resettlement | Standard sets out requirements for land acquisition and/or restrictions on land use, which can result in the temporary or permanent displacement etc. | Standard is applicable for the design stage for Lot no.2 |
| PR 6 Biodiversity Conservation & Sustainable Management of Living Natural Resources | The standard sets out the requirements and measures to adopt throughout the project life cycle to protect the biodiversity etc. | Standard is applicable for the design stage for Lot no.2 |
| PR 7 Indigenous Peoples | The standard sets out and responsibilities for assessing, managing and monitoring project impacts, risks and opportunities related to Indigenous Peoples | Standard is not applicable for MRRP. |
| PR 8 Cultural Heritage | Standard sets out requirements for protection of the cultural heritage, etc. | Standard is applicable for the design stage for Lot no.2 |
| PR 9 Financial Intermediaries | Standard sets out the requirements and processes for financial intermediaries of intermediated financing, etc. | Standard is not applicable for MRRP. |
| PR 10 Information Disclosure and Stakeholder Engagement | The Standard ensures an engagement with stakeholders throughout the project life cycle, commencing such engagement as early as possible in the project development process etc. | Standard is applicable for the design stage for Lot no.2 |

### 6.2.3 Evaluation of compliance with applicable EBRD's PRs

#### 6.2.3.1 General data

During the design process, the Designer developed the following technical documents:

| PRs | Performance Requirements | PRs Objectives | Technical and ES Plans developed during the DD stage by the Technical Designer | Identified Gaps |
|---|---|---|---|---|
| 1 | Assessment and Management of Environmental and Social Risks and Impacts | - identify and assess ES risks and impacts of the project;<br>- adopt a mitigation hierarchy approach to address ES risks and impacts from project activities on workers, affected communities, and the environment;<br>- develop an ESMS commensurate to the ES risks and impacts of the project in a manner consistent with the relevant PRs; and<br>- promote continuous improvement of the client's ES performance through the effective use of management systems. | - Road Engineering Report<br>- Bridges Engineering Report<br>- Road works<br>- Cross sections<br>- Culverts. Drainage of rainwater/<br>- Road marking and signing<br>- Bridges<br>- Overhead Power Cable Lines<br>- Road lighting<br>- Telecommunications cables<br>- External Water supply<br>- Organization of construction works (HS, Env. Fire and fighting, traffic, etc.)<br>- Materials for land allocation<br>- BoQs for road, bridges, utilities | The PR no.1 was not used for assessing ES risks for proposed equipment and materials, workforce, communication and disclosure process, etc.<br><br>The National Design Procedure must be coordinated with applicable EBRD PRs |
| 2 | Labour & Working Conditions | - respect and protect the fundamental principles and rights of workers;<br>- ensure fair treatment, non-discrimination, and equal opportunities of workers in accordance with the decent work agenda;<br>- establish, maintain and improve a sound worker management relationship;<br>- ensure compliance with national labour and employment laws and any collective agreements to which the client is a party;<br>- protect women and men at work, including vulnerable workers such as young workers, persons with disabilities, migrant workers and refugees, workers engaged by third parties, and workers in the client's supply chain; | This aspect is included in the Organisation of Construction Works | Included general recommendation to protect workforce by wearing PPE and construction site.<br>The documents include general recommendation to take measures to protect the site of fire risk<br>The following gaps were identified:<br>- Labour and working condition (recruitment criterion) are not defined as well as human rights principles, non-discrimination, fair treatment, etc.<br>- Roles, responsibilities and authorities are defined partial and general;<br>- Training requirements for direct and subcontracted workers are not defined; |

| | | | | |
|---|---|---|---|---|
| | | - prevent the use of forced labour and child labour (as defined by the International Labour Organisation (ILO)); and<br>- ensure that accessible and effective means to raise and address workplace concerns are available to workers. | | - The operating criterion are not established to performed construction works in safe on site;<br>- Emergency arrangements are recommended as general aspects and not specify roles and responsibilities;<br>- Monitoring and measurements of performances are not provided in Es documents;<br>- Nonconformities, incidents and accidents are not provided in the ES documents |
| 3 | Resource Efficiency, Pollution Prevention & Control | - adopt the mitigation hierarchy approach to addressing adverse impacts on human health and the environment arising from the resource use and pollution released from the project;<br>- avoid, minimise and manage project-related GHG emissions;<br>- avoid, minimise and manage the risks and impacts associated with hazardous substances and materials, including pesticides; and<br>- identify, where feasible, project-related opportunities for resource efficiency improvements.<br>- specific water use (measured by volume of water used per unit production) will be assessed;<br>- operations will be benchmarked to available industry standards and GIP of water use efficiency; and<br>- opportunities for continuous improvement in terms of water use efficiency and recovery should be identified. | This aspect is included in the Organisation of Construction Works and is mentioned the during the construction stage impact on environmental is minimal | The ESMP was developed by the Employer in parallel with DD process, but was not used EBRD's PR no.1 in the risk assessment process.<br>The following gaps were identified:<br>- Roles, responsibilities and authorities are defined partial and general;<br>- Training requirements for direct and subcontracted workers are not defined;<br>- The operating criterion are not established to performed construction works in safe on site;<br>- Emergency arrangements are recommended as general aspects and not specify roles and responsibilities;<br>- Monitoring and measurements of performances are not provided in ES documents;<br>- Nonconformities, incidents and accidents are not provided in the ES documents |
| 4 | Health, Safety and Security | - protect and promote the health, safety and security of workers, by ensuring safe, healthy and secure working conditions and implementing a management system, appropriate to risks associated with the project; and | This aspect is included in the Organisation of Construction Works, in the Labour Safety Chapter | The following gaps were identified:<br>- EBRD PR no.1 was not used to assessed risks<br>- Roles, responsibilities and authorities are defined partial and general;<br>- Control of subcontractors, supply, community HS, etc. are not defined; |

| | | | | |
|---|---|---|---|---|
| | | - identify, assess, and manage health, safety and security risks to project - affected communities and consumers during the project life cycle from both routine and non-routine activities. | | - Training requirements for direct and subcontracted workers are not defined;<br>- The operating criterion are not established to performed construction works in safe on site;<br>- Emergency arrangements are recommended as general aspects and not specify roles and responsibilities;<br>- Monitoring and measurements of performances are not provided in Es documents;<br>- Nonconformities, incidents and accidents are not provided in the Es documents |
| 5 | Land Acquisition, Restrictions on Land Use & Involuntary Resettlement | - avoid involuntary resettlement or, when unavoidable, minimise involuntary resettlement by exploring feasible alternative project designs and sites;<br>- avoid forced eviction;<br>- mitigate unavoidable adverse social and economic impacts from involuntary resettlement on affected persons by: (i) providing timely compensation for loss of assets at full replacement cost; and (ii) ensuring that land acquisition, restrictions on land use, other assets and natural resources and involuntary resettlement activities are implemented with meaningful consultation, participation, and disclosure of information, in accordance with the req. of PR 10;<br>- improve, or as a minimum restore the livelihoods and standards of living of affected persons compared to pre-displacement levels; and<br>- improve living conditions of physically displaced persons through the provision of adequate housing (including essential services and utilities) with security of tenure at resettlement sites. | The Resettlement Policy Framework was developed during the FS/ESIA process, and RAP was developed during the DD process based on the technical data provided by the technical designer | The land has been purchased by the Employer NRA |
| 6 | Biodiversity Conservation & | - protect and conserve biodiversity using a precautionary approach; | The Biodiversity Risks Assessment was developed in parallel with the | The Employer performed and additional Biodiversity Risk Assessment Report for the express road M1 and |

| | | | | |
|---|---|---|---|---|
| | Sustainable Management of Living Natural Resources | - adopt the mitigation hierarchy in the design and implementation of projects with the aim of achieving no net loss, and where appropriate, a net gain of biodiversity;<br>- maintain ecosystem services; and<br>- promote good international practice in the sustainable management and use of living natural resources. | Design Process by an independent Consultant | the Environmental Agency issued the Environmental Permit no.24/2025.<br>The technical design did not stipulate any measures to control the construction work and ensure that the right of way was not exceeded.<br>The role and responsibilities of the supervision consultant do not include monitoring the right of way in the technical documents. |
| 7 | Cultural Heritage | - support the protection and conservation of cultural heritage;<br>- adopt the mitigation hierarchy approach to protecting cultural heritage from adverse impacts arising from the project;<br>- promote the equitable sharing of benefits from the use of cultural heritage in business activities; and<br>- where significant elements of cultural heritage are identified, promote the awareness, appreciation and enhancement of cultural heritage as well as potential socioeconomic benefits for local communities. | The Designer stated that "Cultural Heritage" is not applicable for rehabilitation process | The requirements for excavation work are not provided in order to protect buried cultural artefacts. |
| 8 | Information Disclosure and Stakeholder Engagement | - outline a systematic approach to stakeholder engagement that will help the client build and maintain a constructive relationship with their stakeholders;<br>- provide means for effective and inclusive engagement with project stakeholders throughout the project cycle;<br>- ensure that appropriate ES information is disclosed and meaningful consultation is held with the project's stakeholders and where appropriate, feedback provided through the consultation is taken into consideration; and<br>- ensure that complaints from stakeholders are responded to and managed appropriately. | This aspect is included in the Organisation of Construction Works and is mentioned that during the construction stage impact on community is minimal etc. | The technical and environmental and social (ES) documents did not provide information on disclosure and stakeholder engagement during the design and construction stages.<br><br>There was no complaint mechanism or procedure for reporting to affected persons.<br><br>The project's SEP was not updated to include the specific engagement of local affected communities or a communication procedure. |

### 6.2.4 Actions to comply with EBRD's Performance Requirements

The following actions are proposed to remediate the identified non-conformities with the applicable PRs:

- Identify the ES aspects and assessed risks, and establish mitigation measures to be included in the Project's specific ESMP.
- Identify the labour and working conditions specific to site for Lot no. 2, assess the risks, and establish mitigation measures to be included in the Project's specific Labour Management Procedure.
- Identify the health, safety and security, and labour and working conditions specific to site for Lot no. 2, assess the risks, and establish mitigation measures to be included in the Project's specific Health, Safety and Security.
- Identify the training needs for capacity development for the construction site, assess the risks, and establish mitigation measures to be included in the Project's specific Training and Economic Inclusion (Capacity Build) Plan;
- Other specific ES Plans and procedures.

# 7 THE ENVIRONMENTAL AND SOCIAL BASELINE

## 7.1 General data about existing situation on the express road M1 Lot no.2

The environmental and social baseline is intended to identify and describe the existing environmental and social aspects of the road corridor. It will also provide an essential benchmark for risk assessment, the establishment of mitigation measures, and their management. The environmental and social baseline will provide a clear understanding of the natural and social environment before any development activity begins.

The M 1 road was constructed in the second half of the 1960s and early 1970s. The road consists of two lanes with a concrete road system. In 2007, during reconstruction work, the concrete slabs were covered with a layer of asphalt. The bituminous layers laid on top of the concrete slabs have aged, and local repairs (filling, sealing, replacing the wearing course, repairing concrete slabs, etc.) only delay the repair or reconstruction and modernisation of the road, which normally does not meet the needs of end users. No major road repairs have been carried out since the road was put into service.

The existing road section has an average width of 7.17 m, ranging from 6.9 m to 11.15 m. On sections featuring acceleration/deceleration lanes and/or widenings, the road has an average width of 11.86 m, ranging from 8.3 m to 14.9 m.

The Pavement Survey Report indicates that the road section is in poor condition in some areas. The most prevalent defects are transverse cracks, which occur at a distance of 4–5 m, originating from the joints between concrete slabs. Damage such as ruts, subsidence, and spalling accounts for approximately 27.7% of the road surface. The filled surface represents 9.9% of the defects present.

Fig. 7-1: The general view of the road Lot no.2 (year 2024)

Fig. 7-2: The general view of the bridge Lot no.2

In the reconstruction section of Lot No. 2, spanning from kilometre 9+208 to 38+800, 23 reinforced concrete bridges were identified at the following kilometres: 12+249, 14+688, 15+525, 16+596, 17+900, 19+638, 21+010, 21+353, 22+415, 23+907, 24+217, 25+439, 26+170, 26+426, 27+189, 27+449, 28+825, 29+206, 29+485, 30+077, 30+453, 31+730, 37+836.

Following a technical inspection of bridges and footbridges, it was determined that their technical condition is satisfactory. It is therefore recommended that their structures be preserved, with only minor repairs and concrete protection works being carried out. It is further recommended that the reinforcement on the embankment be renovated.

### 7.2 Equipping and upgrading the road under existing conditions

The existing M1 motorway, Lot no.2 km 9+208 – 38+800, is equipped with the following motorway information and equipment:
- Kilometer markers 30 units.
- Road signs, typical 229 units.
- Road signs, individual 6 units.
- Metal road guardrail exists
- Intersections with local and regional auxiliary roads
- Bus stops 7 units
- Lane markings missing 7 units
- Acceleration/deceleration lanes with a width of ≈3.5-4.0m missing

Sidewalks need to be included in the road cross-section.

Following a thorough examination of the existing M1 road (km 9+208 – 38+800), including areas with retaining walls, the following recommendations are proposed:
- The feasibility of adjusting the longitudinal profile by increasing the radii of concave curves will be explored, with the aim of enhancing visibility distance.
- The existing retaining walls will be assessed for rebuilding, depending on their condition and location within the road area.
- The construction of additional lanes for slow vehicles will be considered for the uphill direction, with a width of 3.5 m.

## 7.2 Climate

### 7.2.1 The climatic zone

According to the World Bank's Climate Change Knowledge Portal, the Hincesti and Nisporeni Districts have a temperate climate characterised by a humid subtropical climate (Cfa). This climate is typified by hot, humid summers and cool to mild winters. The high humidity levels experienced during the summer months can create a feeling of oppressiveness, while the mild winters may not be cold enough for permanent snow cover, though frosts can occur.

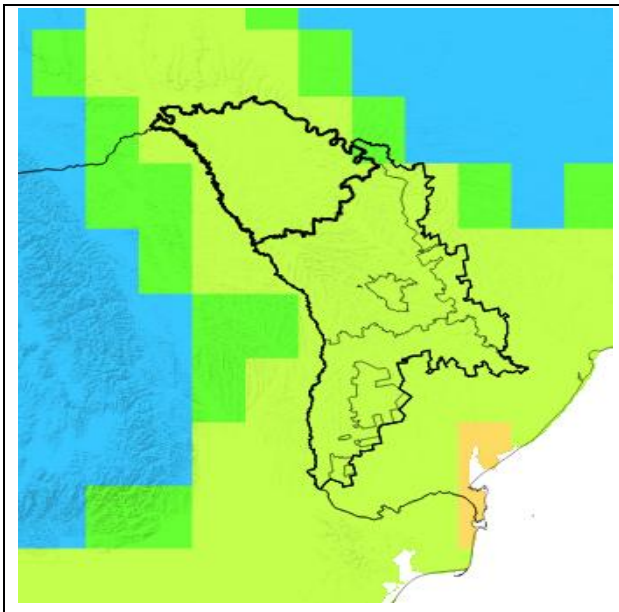


Fig. 7-3: The climate zone[38] in the Republic of Moldova (Cfa)


Fig. 7-4: The Hincesti and Nisporeni Districts are located in the central agro-ecological zone

The Hincesti and Nisporeni District is located in the central agro-ecological zone II, with regard to temperature and precipitation. The area is characterised by terraces of the Prut River and is exposed to significant risks of soil erosion, salinization, desertification and increased flooding.

The Central Zone of the Republic of Moldova is distinguished by its hilly terrain, wooded areas, and a variety of step and meadow vegetation. These natural features are particularly evident in the northern plateau along the Prut River, the Transnistrian Highlands, and the Balti rolling plain. The Central Zone is well-suited for the cultivation of sugar beets, corn, peas, soybeans, wheat, and barley. Additionally, the region boasts significant potential for forage pasture production, making it a valuable asset for livestock farming.

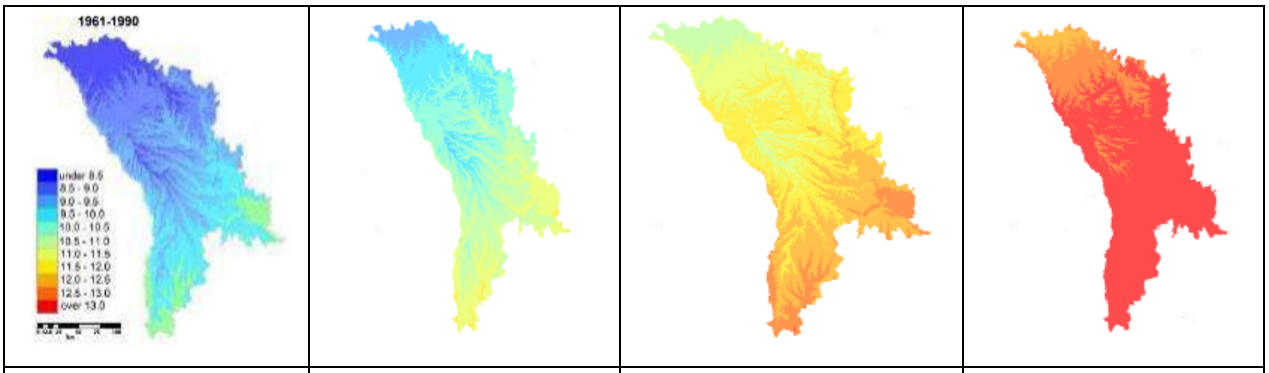
### 7.2.2 Climate Change

The territory of the Hincesti and Nisporeni Districts are located in the central-ecological zone with the following characteristics: high risks of soil erosion, salinization, desertification and medium risks of flood increase. In the Third National Communication of the Republic of Moldova under United National Framework Convention on Climate Change, three climate change scenarios were developed for assessing the future climate (temperature and precipitation). All general circulation models (GCMs) used agree that in future considered periods (2020s, 2050s and 2080s), there will be an increase of the annual mean temperature and a decrease of the annual precipitation, relative to the 1961-1990 reference periods, will be expected. The Republic of Moldova is highly vulnerable to

[38] Source: https://climateknowledgeportal.worldbank.org/country/moldova

climate change and variability, and the socio-economic costs of climate change related to hazards such as **droughts, floods, late spring frost, hail** are significant.

The three emission scenarios predict relatively homogeneous temperature increases in the Republic of Moldova for the period 2010-2039, with an average increase of approximately +1.2-1.4°C. However, starting from the 2050s, these three model ensembles of emissions scenarios project more divergent temperature increase trends. This is due to the significant inertia of the climate system, which takes centuries for the impact of greenhouse gas emissions to fully manifest. By the 2020s, the annual mean air temperature will increase by 1.2-1.4°C, 2.2-2.8°C by the 2050s and 2.7-4.2°C by the 2080s.



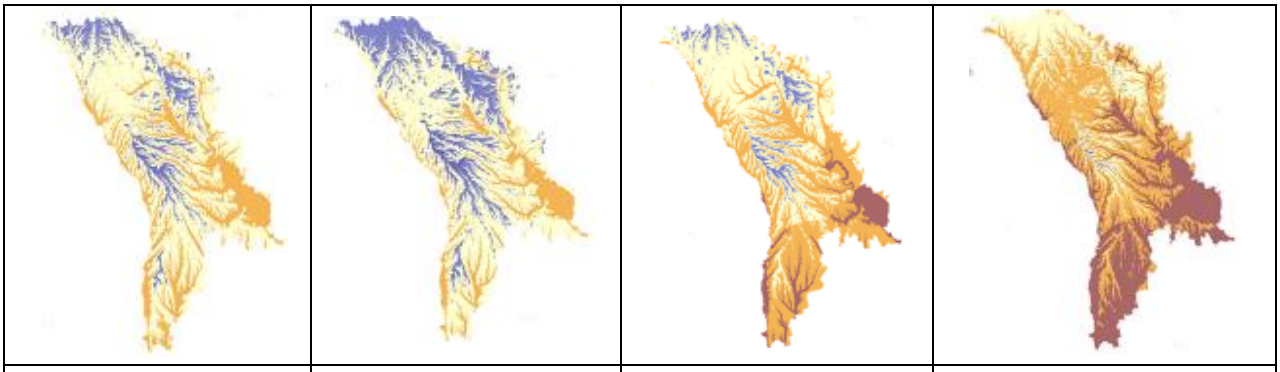

| 1961-1990 | 2020s | 2050s | 2080s |
|---|---|---|---|

Fig. 7-5: The evolution of the air temperature in Republic of Moldova

Since the 1980s, droughts have been a significant problem for the Republic of Moldova, particularly in the southern regions. The extreme droughts that occurred in 2007 and 2012 impacted over 70% of the country's area, leading to a substantial decrease in agricultural production. It should be noted that a considerable time will elapse before greenhouse gas emissions result in scenarios that are currently considered climate predictions. By the 2080s, the average temperature is projected to rise, reaching approximately 4.3°C.

Additionally, the Republic of Moldova experiences periodic flooding. Over the past 70 years, there have been 10 major floods along the Dniester and Prut rivers, as well as several smaller rivers in specific locations.

It is estimated that the annual average precipitation increased by approximately 2% by 2020. However, the rate of decrease in precipitation is projected to vary between -1.1% and -6.9% by 2050, and between -1.8% and -13.5% by 2080, depending on the specific climate scenario.



| 1961-1990 | 2020s | 2050s | 2080s |
|---|---|---|---|

Fig. 7-6: The evolution precipitation in the Republic of Moldova

The largest decrease in precipitation is expected during the summer months, varying from -0.6% to -1.4% by 2020, from -3.3% to -15.9% by 2050, and from -8.4% to -26.4% by 2080, depending on the selected climate scenarios.

### 7.2.3 Adapt the road infrastructure to climate change

In the road design process, the Consultant took into account the recommendations of the Implementation Plan for the National Strategy for Adaptation to Climate Change (SNASC) 2020, which includes the following aspects for the transport sector: (1) Adapting road infrastructure design to climate change; (2) Ensuring the sustainability of transport infrastructure by using materials that are resistant to flooding and extreme temperatures.

The Consultant recommends the following:
1. Based on current and projected traffic, as well as from a functional and administrative perspective, the public road M1 km 9+208 - km 38+800 is categorized as a national road of technical category III.
2. The reconstruction of the M1 road, Lot no. 2 km 9+208 – 38+800, is to be executed according to technical category III, with the following main parameters of the cross section: Carriageway width 2(3)x3.50 m − Shoulder 2x0.5m. − Shoulders 2x2.0m.
3. The road structure will be constructed by demolishing the existing road structure and building the new road structure using the existing materials from the demolition. (Milling of asphalt concrete and dismantling of monolithic concrete slabs).
4. Consideration will be given to the possibility of straightening the route in the route plan with small radius curves that do not comply with the applicable technical requirements of the Republic of Moldova.
5. Modifications will be considered to the longitudinal profile, with the aim of improving visibility distance, and this will include increasing the radii of concave curves.
6. Depending on their condition and location in the road area, the existing retaining walls need to be rebuilt.
7. For the uphill direction, additional lanes for slow vehicles need to be built, with a width of 3.5 m.

8. The general plan for the drainage of rainwater has been studied, including an analysis of the engineering structures with the possibility of reconstruction.
9. Schematic variants of at-grade road junctions with side roads should be constructed.
10. Implementation of the road traffic organisation plan is essential.

### 7.2.3 Temperature

The climatic conditions in the region are highly favourable. The following figures illustrate the climatic characteristics (temperature, precipitation and wind speed) recorded in the central part of the Republic of Moldova (Hincesti and Nisporeni Districts) during the year 2024[39].

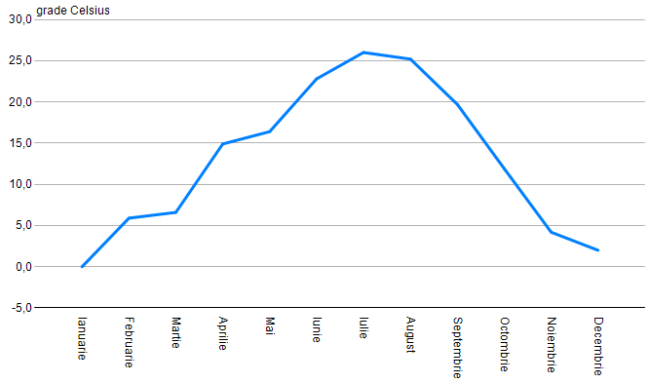



Figure 7-7: The temperature (°C) in the Hincesti and Nisporeni Districts (Chisinau) during the year 2024

The lowest air temperature of 0 ºC was in January 2024 and the highest of 26.6 ºC was measured in July 2024.

The average annual air temperature in the Hincesti and Nisporeni Districts (Chisinau) for 2024 was 13 °C, but for the last 5 years (2020 – 2024) fluctuates of the temperature were as follow:

| | Chisinau | | | | |
|---|---|---|---|---|---|
| | 2020 | 2021 | 2022 | 2023 | 2024 |
| Media anuala | 12,7 | 10,6 | 11,7 | 12,7 | 13,0 |

During the period of instrumental observations in the Republic of Moldova, the lowest recorded air temperature was -35.5°C on 20 January 1963 at the weather station in Brătușeni (district Edineț), while the highest was +42.4°C (on 7 August 2012 at the weather station in Falesti).

[39] Source: Temperatura medie a aerului pe Luni, Statia meteorologica și Ani. PxWeb

### 7.2.4 Precipitation

The Hincesti and Nisporeni Districts have experienced above-average precipitation levels in September 2024 (177 mm), June 2024 (105 mm) and May 2024 (90 mm). The lowest precipitation was recorded in February 2024, with 15 mm.

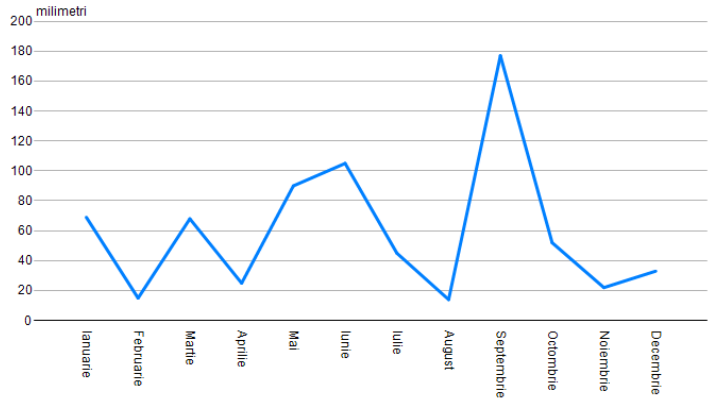



Figure 7-8: The precipitation[40] in the Hincesti and Nisporeni Districts (Chisinau) during the year 2024

In 2024, the average annual precipitation in the Hincesti and Nisporeni Districts was 715 mm. However, over the last five years (2020–2024), precipitation levels have shown some fluctuation, as outlined below:

| | Chisinau | | | | |
|---|---|---|---|---|---|
| | 2020 | 2021 | 2022 | 2023 | 2024 |
| Cantitatea anuala | 562 | 666 | 444 | 430 | 715 |

### 7.2.5 Wind regime and speed

The wind regime[41] is characterized by the predominance of the wind direction from the northwest on most of the territory of the country. Wind speed is high on the winter period (January, February, March, November and December) and the lowest is specific for June, August and October 2024.

[40] Source: National Bureau of Statistic - Cantitatea de precipitatii pe Luni, Statia meteorologica și Ani. PxWeb
[41] Source: Viteza medie a vintului pe Luni, Statia meteorologica și Ani. PxWeb

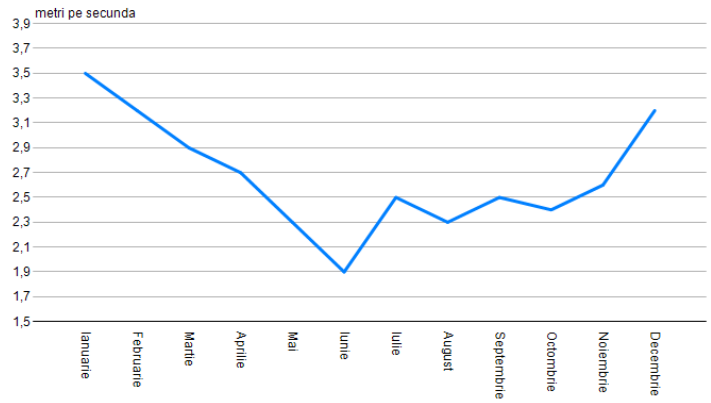



Figure 7-9: The wind speed in the Hincesti and Nisporeni Districts during the year 2024

In the year 2024, the average annual wind speed in the Hincesti and Nisporeni Districts was 2.7 m/s, but for the last 5 years (2020 – 2024) fluctuates of wind speed were as follow:

| | Chisinau | | | | |
|---|---|---|---|---|---|
| | 2020 | 2021 | 2022 | 2023 | 2024 |
| Media anuala | 2,9 | 2,9 | 2,9 | 3,0 | 2,7 |

## 7.3 Air Quality

### 7.3.1 Air quality in the Hincesti and Nisporeni Districts

The quality of the air in the Hincesti and Nisporeni Towns is influenced by human activity, transport, industrial production and natural sources of pollutants. There is a historical trend of increasing air pollution. The highest concentrations of pollutants are observed in the municipalities of Chisinau in the vicinity of large power plants. However, the overall air pollution situation in Moldova is favourable, especially compared to other European countries, including Ukraine, Romania and others.

The Chisinau Environment Agency and the State Hydro-Meteorological Service conducted measurements of air quality, assessing six parameters (solid suspensions, carbon monoxide, nitrogen dioxide, nitrogen monoxide, phenol and formic aldehyde). The resulting data was reported to the National Bureau of Statistics[42] and the results of measurement are presented in the table below.

[42] Source: Emisiile de substante poluante in aerul atmosferic de la sursele stationare ale agentilor economici pe ingrediente pe Raioane/Regiuni, Ani și Ingrediente. PxWeb

The air pollution with Particular Maters[43] (PM) in the Hincesti and Nisporeni Districts is presented in the table below.

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| | Solide | Solide | Solide | Solide | Solide |
| ..Hincesti | 135 | 128 | 173 | 166 | 184 |

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| | Solide | Solide | Solide | Solide | Solide |
| ..Nisporeni | 17 | 17 | 17 | 15 | 15 |

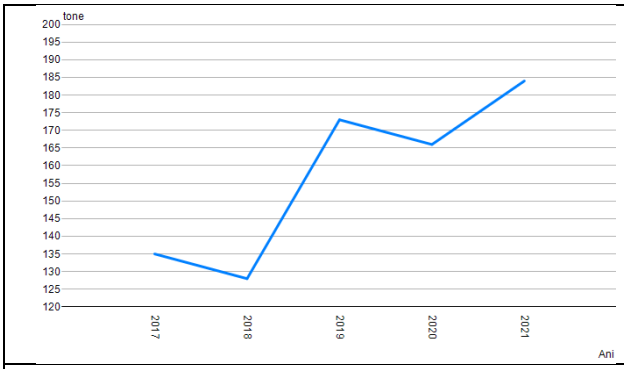



Figure 7-10: The air pollution in the Hincesti District with particular matters (solids) during years 2017 - 2021

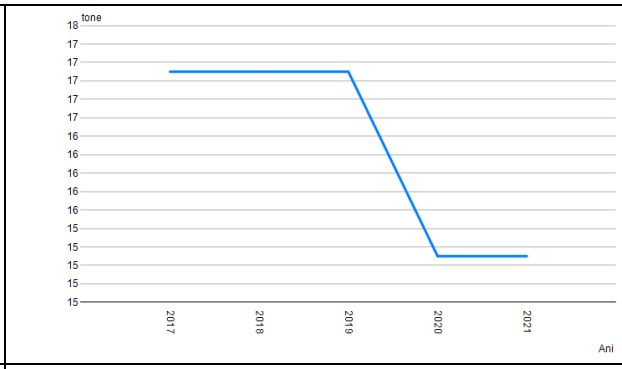



Figure 7-11: The air pollution in the Nisporeni District with particular matters (solids) during years 2017 - 2021

The air pollution with Sulphur[44] dioxide ($SO_2$) in the Hincesti and Nisporeni Districts is presented in the table below.

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| | ..dioxid de sulf | ..dioxid de sulf | ..dioxid de sulf | ..dioxid de sulf | ..dioxid de sulf |
| ..Hincesti | 101 | 98 | 104 | 104 | 104 |

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| | ..dioxid de sulf | ..dioxid de sulf | ..dioxid de sulf | ..dioxid de sulf | ..dioxid de sulf |
| ..Nisporeni | 1 | 1 | 1 | 1 | 2 |

[43] Source: Emisiile de substante poluante in aerul atmosferic de la sursele stationare ale agentilor economici pe ingrediente pe Raioane/Regiuni, Ani și Ingrediente. PxWeb

[44] Source: Emisiile de substante poluante in aerul atmosferic de la sursele stationare ale agentilor economici pe ingrediente pe Raioane/Regiuni, Ani și Ingrediente. PxWeb

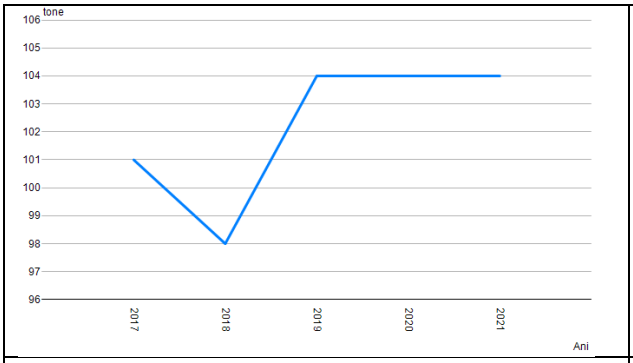



Figure 7-12: The air pollution with Sulphur Dioxide ($SO_2$) in the Hincesti District during years 2017 - 2021

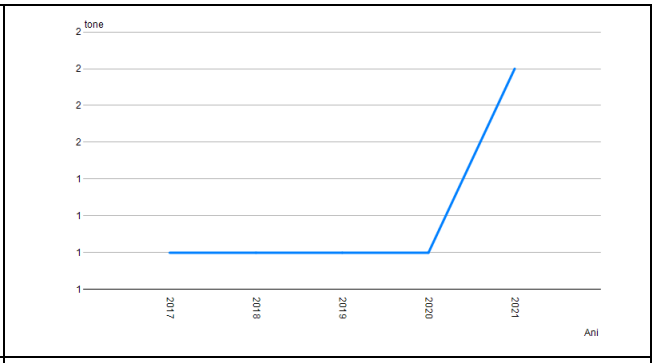



Figure 7-13: The air pollution with Sulphur Dioxide ($SO_2$) in the Nisporeni District during years 2017 - 2021

The air pollution with Carbon[45] Oxide (CO) in the Hincesti and Nisporeni Districts is presented in the table below.

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| | ..oxid de carbon | ..oxid de carbon | ..oxid de carbon | ..oxid de carbon | ..oxid de carbon |
| ..Hincesti | 187 | 165 | 185 | 183 | 207 |

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| | ..oxid de carbon | ..oxid de carbon | ..oxid de carbon | ..oxid de carbon | ..oxid de carbon |
| ..Nisporeni | 28 | 26 | 29 | 27 | 27 |

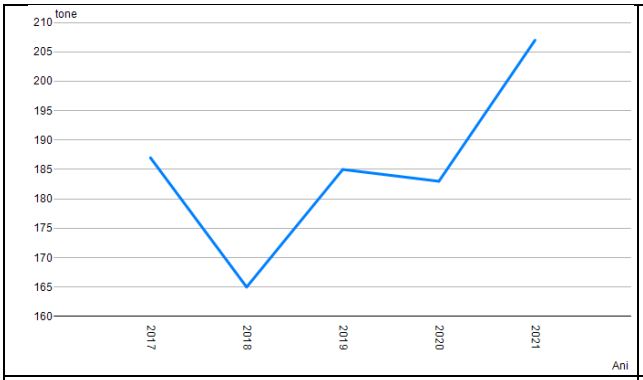



Figure 7-14: The air pollution with Carbon Oxide (CO) in the Hincesti District during years 2017 - 2021

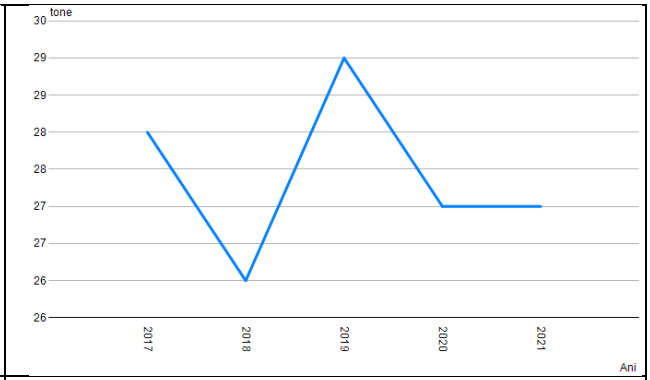



Figure 7-15: The air pollution with Carbon Oxide (CO) in the Nisporeni District during years 2017 - 2021

[45] Source: Emisiile de substante poluante in aerul atmosferic de la sursele stationare ale agentilor economici pe ingrediente pe Raioane/Regiuni, Ani și Ingrediente. PxWeb

The air pollution with Nitrogen[46] Oxide (NOx) in the Hincesti and Nisporeni Districts is presented in the table below.

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| | ..oxid de azot | ..oxid de azot | ..oxid de azot | ..oxid de azot | ..oxid de azot |
| ..Hincesti | 18 | 17 | 42 | 43 | 47 |

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| | ..oxid de azot | ..oxid de azot | ..oxid de azot | ..oxid de azot | ..oxid de azot |
| ..Nisporeni | 4 | 4 | 4 | 4 | 3 |

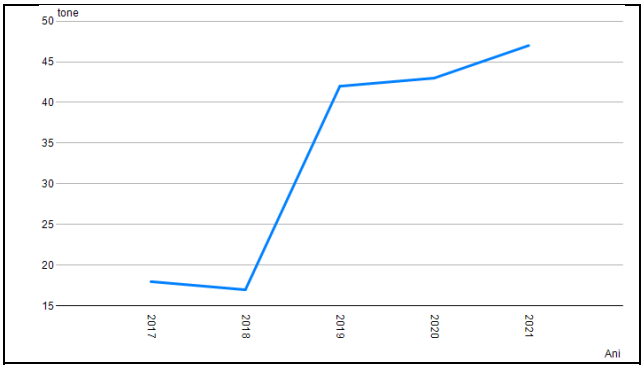



Figure 7-16: The air pollution with Nitrogen Oxide (NOx) in the Hincesti District during years 2017 - 2021

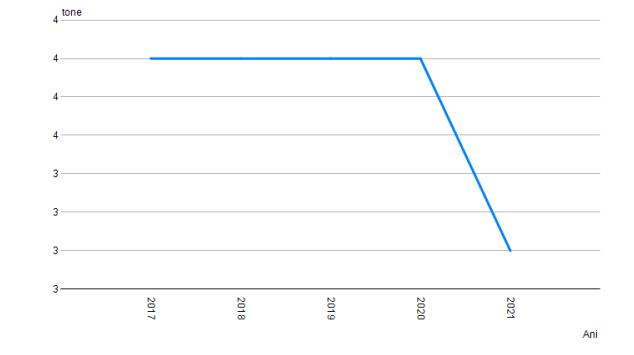



Figure 7-17: The air pollution with Nitrogen Oxide (NOx) in the Nisporeni District during years 2017 - 2021

Also, the European Space Agency (ESA)[47] carried out a study for air pollution mapping in the Republic of Moldova using Earth observation data. Satellite data provided by Sentinel 5P – based on state-of-the-art technology, equipped with the latest atmospheric measurement equipment – was used to analyse the main atmospheric pollutants: ozone ($O_3$), nitrogen dioxide ($NO_2$), carbon dioxide of sulphur ($SO_2$), suspended dust ($PM_{10}$ and $PM_{2.5}$).

Thus, as a whole, the level of air pollution in Moldova, seen from space, is relatively low compared to other European countries and our neighbours, being mostly within the limits of the air quality guide of the World Health Organization.

### 7.3.2 Noise and Vibration Levels

Acoustic pollution, also known as noise pollution, is a component of environmental pollution produced by noise. Noise is a health and environmental problem that is defined as a complex of

[46] Source: Emisiile de substante poluante in aerul atmosferic de la sursele stationare ale agentilor economici pe ingrediente pe Raioane/Regiuni, Ani și Ingrediente. PxWeb
[47] Source: https://maps.s5p-pal.com/

sounds without a periodic character, with random, unpleasant insurgency, which affects the psychological and biological state of people and other organisms in nature.

The physical or objective characteristics of noise concern loudness or loudness, duration and frequency. Intensity is the most important character that depends on the features of the source, distance and possibilities of transmission or multiplication.

It has been accepted that the number 80 on the decibel scale, or on the phone scale, represents the threshold at which sound intensity becomes harmful. Excessive exposure to intense noise for long periods of time causes deafness.

The following are the main sources of acoustic pollution, which present a serious risk to the health and safety of workers in the industrial environment:
- pipes through which gases, vapours or liquids circulate;
- compressors and turbochargers;
- fans and turbo blowers;
- ventilation installations;
- pipelines through which gases are circulated at high speeds;
- pumps and electric pumps;
- thermoelectric plants;
- fans, electric power generators, piston compressors for supplying compressed air, and burners from steam boilers;
- industrial furnaces (the most important source of noise is the burners, forced draft fans, regulating valves and blowers).

According to a study published by the World Health Organization[48] (WHO), the acoustic pollution produced by traffic (cars, trains and planes), considered "the second environmental factor favouring diseases", after atmospheric pollution, is at the origin of some diseases, the reduction of attention , of work capacity with the increase in the risk of accidents; installation of auditory fatigue; traumas (dizziness, pain, damage to the auditory system and even rupture of the eardrum); insomnia, heart attack, learning problems and tinnitus (ringing in the ears); weight loss, stomach spasms, nervousness, colour recognition deficiency and even premature death.

## 7.4 Hydrology

### 7.4.1 The Danube-Prut-Black Sea Hydrographic District

The total area of the Danube-Prut[49] and Black Sea hydrographic district basin (DPBSHDB) is 14770 km$^2$ within the limits of the Republic of Moldova, which represents 43.6% of the total area of the country. From the administrative-territorial perspective, the DPBSHDB includes 18 administrative

[48] Source: https://www.who.int/europe/health-topics/noise#tab=tab_1
[49] Source: https://www.environment.md/en/danube-prut-black_sea_hydrographic_district#:~:text=The%20Prut%20river%20basin%20is%20in%20the%20territory%20of%20three,40%20and%20162%20m3%20/%20s.

districts. From north to south, the district spans about 350 km, with variable width (from 25 km to 120 km). The geographical position and configuration of the district determines a remarkable diversity of geological structure, geomorphological characteristics and climatic conditions. The specificity of these environmental components significantly determines the characteristics of biota, soils, hydrological and hydrochemical characteristics of groundwater and surface water. The average value of the absolute altitude of the district landscape is 142 m, a typical value for the lower regions.

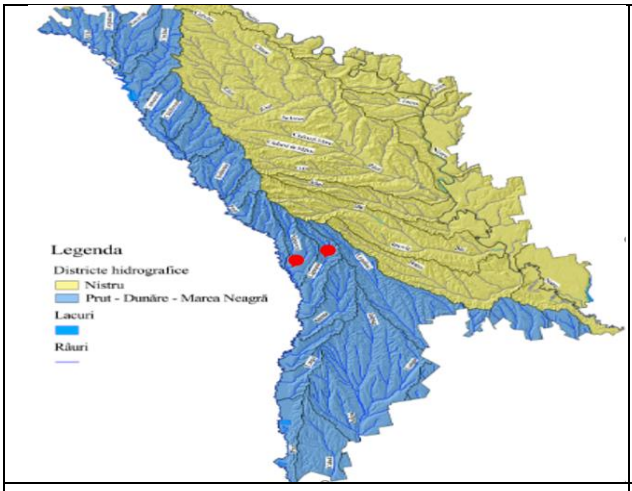



Fig. 7-18: The Hydrographic basin of the Prut River

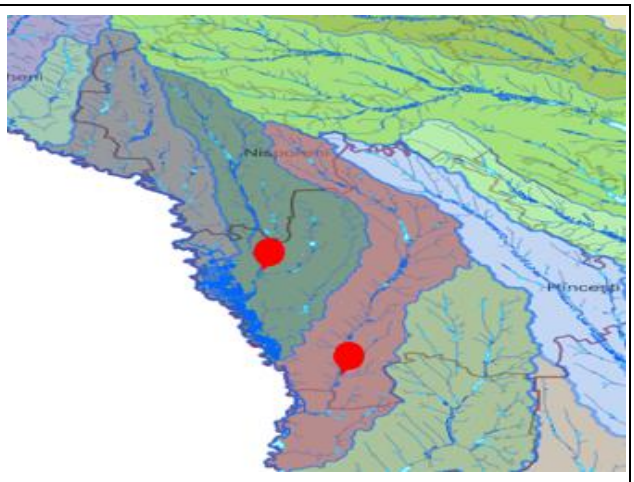


Fig. 7-19: The Hydrographic Basins[50] of the Nirnova and Lapusna Rivers

The Prut river basin is part of the Danube basin, representing its eastern border. The Danube Basin crosses the territory of 19 European countries. The Republic of Moldova is a member of the International Commission for the Protection of the Danube and directly manages 0.94% of the total area. The Prut river basin is in the territory of three countries, 28% in the Republic of Moldova (39% in Romania and 33% in Ukraine) out of the total area of 27,540 km$^2$.

Within the borders of the Republic of Moldova, the Prut River has only left tributaries, including the following: Racovăț, Larga, Vilia, Lopatnic, Draghișteе, Ciuhur, Camenca, Nîrnova, Lăpușna, Sîrma, Sărata, Tigheci, Larga.

### 7.4.2 The Nirnova River Basin

The Nîrnova river has its origins in the southern part of the villages Vanatori and Nisporeni. It is 49 hectares in length and is located in close proximity to the village Leuseni. The river basin is situated in the western part of the Codrii highland, with an average elevation of 160 metres and an area of 358 square kilometres. The river Nârnova has 40 affluent streams, the majority of which are less than 10 kilometres in length. The majority of the basin area is ploughed, while the upper part of the river is covered in forests. The affluent valleys are narrow with steep slopes, which are susceptible to erosion. The bottomland is bilateral, with a length ranging from 150 to 400 metres, reaching a

[50] Source: https://csa.gov.md/adapt/dist/#/layers

maximum of 600 metres (4 kilometres upstream of the village Leuseni) and a minimum of 60 metres at the spring.

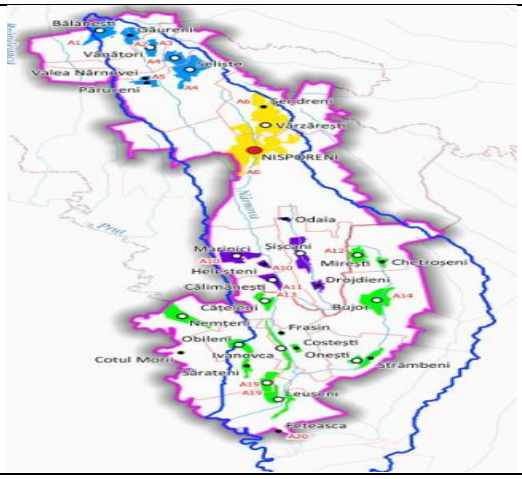



Fig. 7-20: The hydrographic basin of the Nirnova[51] River

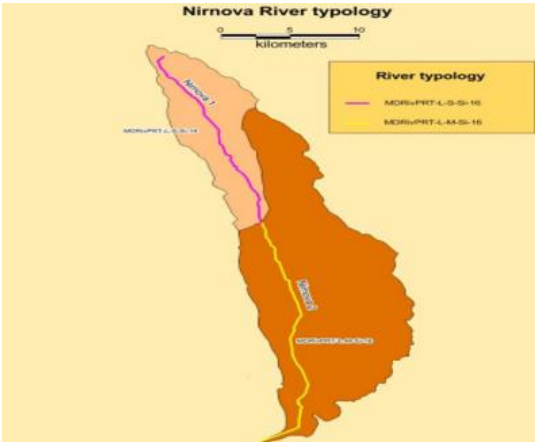



Fig. 7-21: The Lot no.1 is located in the Nirnova River Basin

The grassland is characterised by alluvial and holomorphic soils. The river has an unstable 1-7 m-wide channel, predominantly in drought-prone areas. The river mouth is canalised, with an 8-metre width. There is a lack of literature data on the flora and vegetation of the Nîrnova river grassland. The aim of our investigation was to establish the floristic and phytocoenotic composition of the vegetation, in order to implement biosafety measures and sustainable use of the Nîrnova river grasslands' flora and vegetation.

### 7.4.3 The Lapusna River Basin

The Lăpușna River is a watercourse, a tributary of the Prut River, in the Republic of Moldova. It springs 2 km northwest of the village of Iurceni, Nisporeni district, and flows into the Prut River near the village of Sărata-Răzeși, Leova district. The river has 30 tributaries that are no longer than 10 km. The river valley is V-shaped, with a width varying between 2-3 km. The slopes, heavily intersected by valleys, are steep, with a height of 80-120 m. The bed of the Lăpușna River is moderately curved and 2-5 m wide. In some sections (Lăpușna, Cărpineni, Mingir), it has been artificially deepened to 1-1.5 m.

[51] Source: https://ecoexpert.md/project/master-plan-privind-alimentarea-cu-apa-si-sanitatie-pentru-bazinul-raului-narnova/

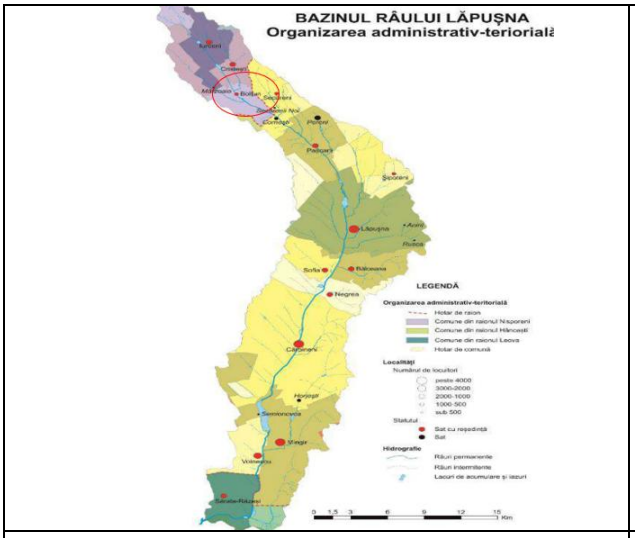



Fig. 7-22: The Lot no.2 are located in the Lapusna River Basin

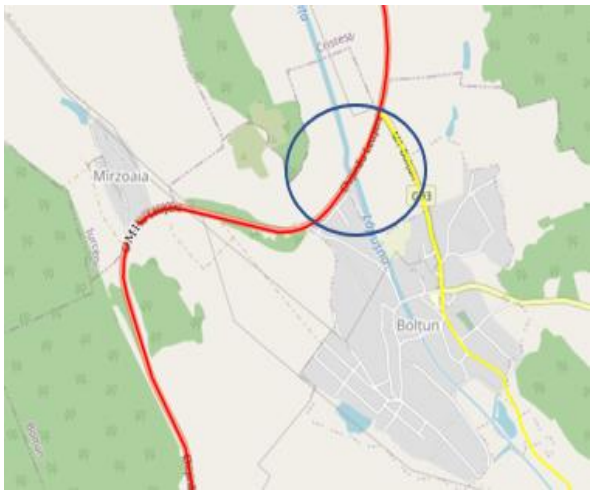



Fig. 7-23: The express road M1 crosses the Lapusna River in the vicinity of Iurceni village

In July 2010, Moldova experienced severe weather conditions, including heavy rains and flooding, that directly impacted 12,000 individuals. A total of 3,183 residential properties in 16 districts (Briceni, Edinet, Criuleni, Hincesti, Ungheni, Soroca, Rezina, Soldanesti, Bender, Cahul, Cantemir, Glodeni, Riscani, Ocnita, Dubasari, Leova) were flooded, with most of these dwellings being destroyed. The district of Hincesti was particularly severely affected, with 700 houses destroyed.

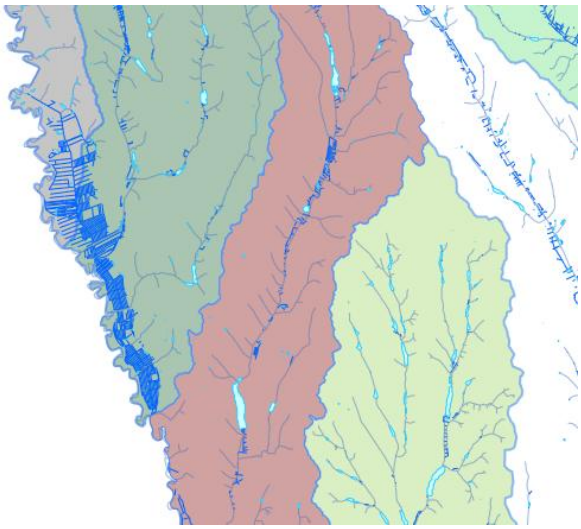


Fig. 7-24: The flooding zone[52] generated by the water of the Prut River and its tributary river Nirnova River, etc.

In response to this crisis, the Moldova Red Cross distributed humanitarian aid to 1,600 families, amounting to 6,400 individuals, across six branches that were impacted by the floods. This assistance

[52] Source: https://csa.gov.md/adapt/dist/#/layers

included three distributions of food parcels and two distributions of hygiene kits. Additionally, the Red Cross implemented measures to ensure adequate sanitation and promote hygiene among the 1,000 most affected families, with a focus on those residing in the villages of Cotul Morii (Hincesti district), Nemteni, Sarateni, Obileni (Hincesti district), Tiganca and Cheltosu (Cantemir district), and the communities of Cotul Morii, Nemteni, Obileni, and Tiganca (Hincesti district). These efforts aimed to educate the population on preventing the spread of water-borne diseases and promoting a safer lifestyle.

### 7.4.2 The underground water resources

#### 7.4.2.1 Aquifer complex of alluvial deposits on the Nirnova River basin

The waters of the Alluvial-Deluvial complex are of significant practical importance due to their acceptable quality. The shallow depth of the aquifer makes it suitable for exploitation and use in the decentralised supply of drinking water and for domestic purposes. The aquifer complex is extensively utilised through wells and by capturing springs for the purpose of decentralised water supply for domestic, drinking and technical production needs.

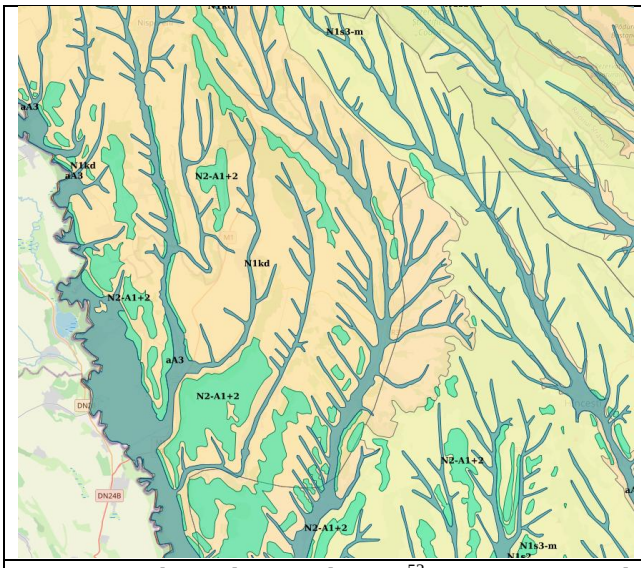



Fig. 7-25: The underground water[53] in Nisporeni and Hincesti Districts ($aA_3$ Alluvial-Deluvial aquifer horizon)

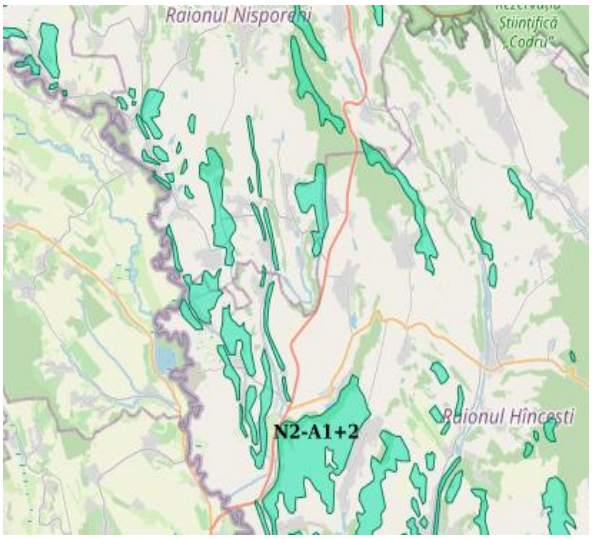



Fig. 7-26: Aquifer[54] complex $N_2$-$A_1$+2 in the Nisporeni and Hincesti Districts

The Alluvial – Deluvial ($aA_3$) aquifer horizon in Nisporeni and Hîncești districts consists of quaternary sediments often used for local, shallow well water supply. These deposits (alluvial/deluvial) are common in the region's river valleys and floodplains, providing a source for rural water needs, though, like many shallow aquifers in Moldova, they can be vulnerable to quality

[53] Source: New Map - geologie.gov.md
[54] Source: https://geologie.gov.md/layers/geofond:gwb_n2_a12

degradation. The water from the $aA_3$ aquifer is primarily used for domestic water supply via small-diameter wells.

The Upper Meotian – Sarmatian ($N_2$-$A_1$+2) aquifer complex in Moldova, including the Nisporeni and Hîncești districts, consists of fine sands, sandy-clayey rocks, and limestone lenses, with thicknesses ranging from 20 - 300 meters. These aquifers generally act as unconfined systems that become confined as they immerse towards the south, where high pressure of 65 - 100 meters is observed. Although water quality often fails sanitary standards due to high hardness and mineralization, it is utilized for potable water supply in these regions.

## 7.5 Geology

### 7.5.1 General data

The Lot No. 2 is located in the Volhynian-Bessarabian substage of the Miocene epoch. In the Nisporeni and Hîncești districts of Moldova, the $N_1s_2$ geological layer refers to the middle Sarmatian deposits (Volhynian-Bessarabian substage of the Miocene epoch). These deposits are part of the sedimentary complex that makes up the Central Moldavian Plateau.

The geological layer $N_1s_2$ (Middle Sarmatian deposits) in the Nisporeni and Hîncești districts of Moldova is part of a complex, hilly landscape characterized by high landslide susceptibility, often referred to as "Basarabian Switzerland" in the Nisporeni District. The geological layer $N_1s_2$ formation, alongside $N_1s_3$ (Upper Sarmatian) and $N_2$-Q (Neogene-Quaternary), is actively involved in landslide processes in this central Moldavian plateau area. Middle Sarmatian deposits in this region are part of the sedimentary structure of the Central Moldavian Plateau, which consists of complex, hilly terrain. The presence of these deposits is closely correlated with steep slope inclinations, leading to frequent landslide events.

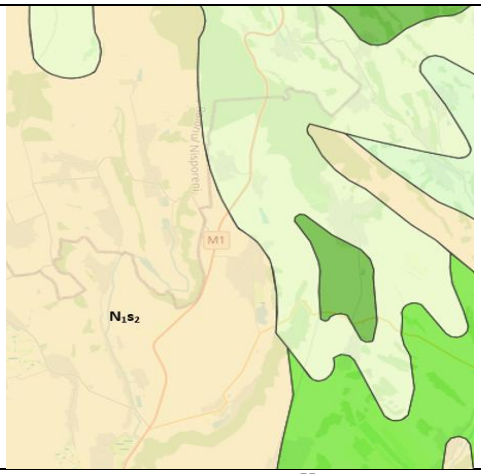



Fig. 7-27: The geology layer $N_1s_2$[55] in the Nisporeni and Hincesti Districts (Lot no.1 and Lot no.2)

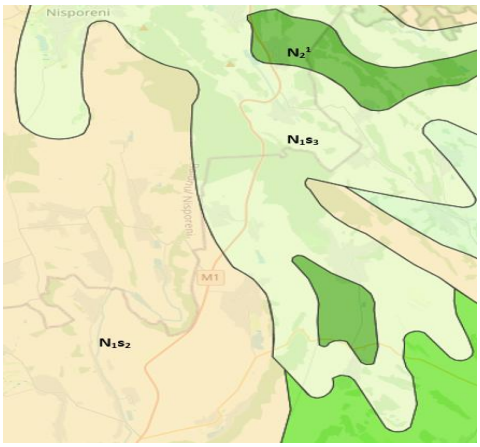



Fig. 7-28: The geological layer $N_1s_3$ in Nisporeni and Hincesti District

[55] Source: https://geologie.gov.md/maps/new?layer=geonode_data:geofond:vw_geolbody600000

The geological layer $N_1S_3$ (Upper Sarmatian / Khersonian) in the Nisporeni and Hîncești districts of Moldova is a significant sedimentary formation, often associated with, and sometimes the primary cause of, widespread landslide activity in the Central Moldavian Plateau. This layer ($N_1S_3$) is highly susceptible to erosion and, along with $N_1S_2$ and $N_2$-Q formations, is heavily involved in the formation of landslides in this area. The geological structure consists of sedimentary rocks that, when exposed on steep slopes (150–250 meters deep), trigger significant slope instability. In the geological layer $N_2^1$ refers to the Middle Miocene (specifically the Badenian stage) sedimentary layers. This layer primarily consists of marine deposits, including limestones, marls, and clays. In the Nisporeni area, it often contains significant deposits of sands and sandstones.

### 7.5.2 Geological data provided by the Technical Design

#### 7.5.2.1 General data

According to the data of technical-geological research[56], carried out by the Technical Designer in 2024, the geological conditions are as follows for the basic state of the networks:
- The seismicity of the working area is 7-8 on the Richter scale;
- Based on current and projected traffic, as well as from a functional and administrative perspective, the public road M1 km 9+208 - km 38+800 is categorized as a national road of technical category III;
- The reconstruction of the M1 road, Lot no. 2 km 9+208 – 38+800, is to be executed according to technical category III, with the following main parameters of the cross section: Carriageway width 2(3)x3.50 m − Shoulder 2x0.5m. − Shoulders 2x2.0m
- The road structure will be constructed by demolishing the existing road structure and building the new road structure using the existing materials from the demolition. (Milling of asphalt concrete and dismantling of monolithic concrete slabs)
- Consideration will be given to the possibility of straightening the route in the route plan with small radius curves that do not comply with the applicable technical requirements of the Republic of Moldova
- Modifications will be considered to the longitudinal profile, with the aim of improving visibility distance, and this will include increasing the radii of concave curves
- Depending on their condition and location in the road area, the existing retaining walls need to be rebuilt
- For the uphill direction, additional lanes for slow vehicles need to be built, with a width of 3.5 m
- The general plan for the drainage of rainwater has been studied, including an analysis of the engineering structures with the possibility of reconstruction
- Schematic variants of at-grade road junctions with side roads should be constructed
- Implementation of the road traffic organisation plan is essential.

#### 7.5.2.1 The approved borrow pit from the Republic of Moldova

The Consultant identified and recommended to use construction materials and pre-fabricated elements from the approved careers and other materials suppliers as presented in the table below.

[56] Source: Geological Survey developed by the Consultant Intexnauca SRL

Table 7-2: Construction materials supply plan

| No | Name of materials | UM | Name of importer | Destination | Weight unit, ton | Type of transport | Distance of material transport, km |
|---|---|---|---|---|---|---|---|
| 1 | *Crushed stone LA25 (granite) all fractions* | *m* | *Career "Cosauti"* | *Route Lot no. 2* | *Stone sp.1,5* | *motor transport* | *206* |
| 2 | *Crushed stone LA30 all fractions/ mix* | *m³* | *Career "Cobani"* | *Route Lot no. 2* | *1,3/1,5* | *motor transport* | *155* |
| 3 | *Crushed stone LA30 all fractions/ mix* | *m³* | *Career "Acit Trans"* | *Route Lot no. 2* | *1,3/1,5* | *motor transport* | *93* |
| 3 | *Ballast, Gravel, Sand* | *m³* | *Career "Păscauți" r-ul Rîșcani* | *Route Lot no. 2* | *1,5* | *motor transport* | *164* |
| 4 | *Monolithic concrete* | *m³* | *UB Chișinău* | *Route Lot no. 2* | *2,3* | *motor transport* | *94* |
| 5 | *Curb stone BR 100.30.18 (15), BR100.20.8, paving* | *m³* | *Chișinău* | *Route Lot no. 2* | *2,3* | *motor transport* | *94* |
| 6 | *Prefabricated reinforced concrete elements* | *ton* | *SA „FEC"* | *Route Lot no. 2* | *1,0* | *motor transport* | *94* |
| 7 | *Asphalt concrete mixture, Bitumen* | *ton* | *UBA Chișinău* | *Route Lot no. 2* | *1,0* | *motor transport* | *82* |
| 8 | *Bitumen-coated stone* | *ton* | *UBA Chișinău* | *Route Lot no. 2* | *1,0* | *motor transport* | *82* |
| 9 | *Station for preparing mixtures* | *m³* | *UB mobila* | *Route Lot no. 2* | *2,2* | *motor transport* | *15* |
| 10 | *Wood, metal railing* | *m³* | *Chisinau* | *Route Lot no. 2* | *0,7* | *motor transport* | *82* |
| 11 | *Storage of soil from excavation* | *m³* | *km 4+000 route M1* | *Route Lot no. 2* | *1.9* | *motor transport* | *10* |

## 7.6 Cultural heritage

### 7.6.1 Tangible cultural heritage

In the Republic of Moldova, tangible cultural heritage is of significant importance to the local population. The mitigation measures that have been implemented are intended to adopt a precautionary approach to the management and sustainable utilisation of cultural heritage. This approach is to be implemented in accordance with the relevant laws and regulations pertaining to cultural heritage, which could be affected by the activities planned by the Project (Lot No. 2).

The term 'tangible cultural heritage' refers to two broad categories of assets. Firstly, there is the 'movable cultural heritage' category, which includes works such as paintings, sculptures and manuscripts. Secondly, there is the 'immovable cultural heritage' category, which encompasses monuments, archaeological sites, cave dwellings and historic buildings. These assets are of historically outstanding universal value in the domains of art or science, or they are of historically

outstanding universal value in terms of their aesthetic, ethnological or anthropological significance[57].

The National Archaeological Agency[58] is the entity responsible for the protection of the tangible cultural heritage of the Republic of Moldova within the Ministry of Culture. According to the NAA, the map of protected archaeological sites is presented in the figure below.

Fig. 7-29: The locations[59] of the identified archaeological sites in the close vicinity of express road Lot no.2

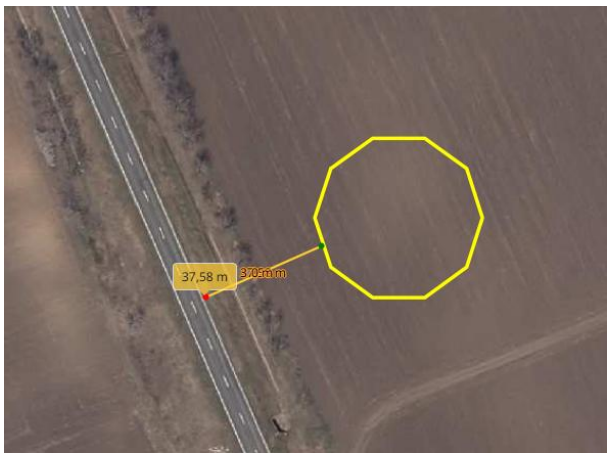



Fig. 7-30: The general view of the identified archaeologic site no.2 in the vicinity of the express road M1 Lot no.2

The nearest archaeological sites located near the express national road M1 are the following table below:

Table 7-1: The heritage protection archaeological sites near the express road m1, Lot no.2

| No. | Name of the archaeological sites | Codes | Dated | Coordinates |
|---|---|---|---|---|
| 1 | Onesti Tumulus no.2 | 5352.2 | Eneolitic / mil. IV i. Hr. - Medieval period / 18th century. | Lat: 46,883/Long: 28,217 |
| 2 | Onești Tumulus no. 1 | 5352.2 | Eneolitic / mil. IV i. Hr. - Medieval period / 18th century. | Lat: 46,889/Long: 28,228 |

The identified protected archaeological sites will not be affected by the reconstruction process of the express national road M1, bur according to the Notice issued by the National Archaeological Agency before starting the construction works on site, a Chance Find Plan shall be developed by the Contractor and shall be approved by the Supervision Consultant (Engineer) and excavator operator shall be trained with provision of the Chance Find Plan and communication procedure in case of identification artefacts and other treasures during excavations.

[57] UNESCO, http://whc.unesco.org/en/conventiontext/ and http://www.unesco.org/new/en/culture/themes/illicit-trafficking-of-cultural-property/unesco-database-of-national-cultural-heritage-laws/frequently-asked-questions/definition-of-the-cultural-heritage/
[58] Source: https://ana.md/harta-siturilor-arheologice-din-republica-moldova/
[59] Source: https://geodata.gov.md/?locale=ro#/viewer/openlayers/347

### 7.6.2 The natural protected Emerald Site

According to the European Environment Agency[60], the express road M1 crosses the Emerald Site "Vila Nisporeni" (Site Code: MD0000028) having the area of 5,451.00 ha (dataset year: 2025).

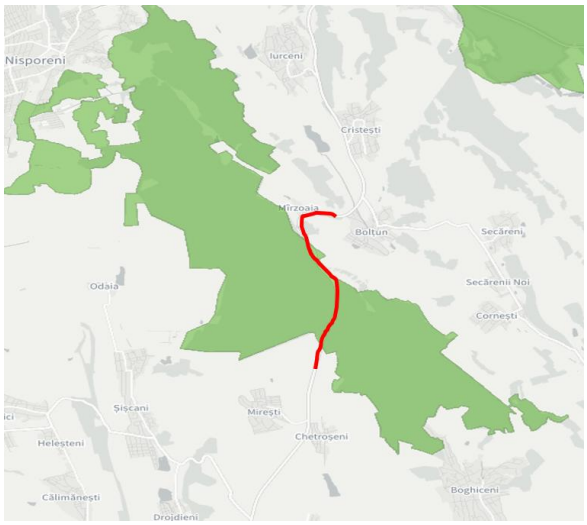



Fig. 7-28: The express road M1 (Lot no.2) crosses the Emerald Sites "Vila Nisporeni" (Site Code: MD0000028)

Vila Nisporeni is a protected area located southeast of the city of Nisporeni, covers an area of 3,499 ha and is managed by the Nisporeni State Forestry Enterprise.

The Emerald Site "Vila Nisporeni" is home to a rich biodiversity, including a total of 314 species of vascular plants, 20 of which are rare. The site also boasts a diverse array of mammals, with 34 species present, along with 78 species of birds and 14 species of reptiles and amphibians. Notably, it is the only forest area in Moldova where the wild peony (Paeonia peregrina) grows spontaneously, making it a valuable natural resource. The peony's presence here marks the northeastern edge of the species' range, underscoring the site's ecological significance.

### 7.6.3 The national forest funds managed by the State Enterprise Agency "Moldsilva"

The state-owned enterprise "Nisporeni-Silva Forestry Enterprise" is an important entity within the structure of the "Moldsilva" Agency. The forests managed by the state-owned enterprise "Nisporeni-Silva" represent a compact forest massif, being of the deciduous forest type found in central Europe. The managed area is located in the central Moldovan plateau in the western part of the Republic of Moldova and covers the administrative territory of three districts: Nisporeni – 11,881.36 ha; Străşeni – 1,132.3 ha; Hînceşti – 857.76 ha.

[60] Source: https://emerald.eea.europa.eu/

Thus, SE "Nisporeni-Silva" manages a forest area of 13,681.41 hectares owned by the state, of which 13,298.7 hectares are covered with forests.

In terms of their socio-economic functions, the company's forests are classified in Group I: "Forests with special protection functions," which means: forests for water protection; forests for land and soil protection; forests with recreational functions; forests of scientific interest originating from: 63% - shoots, 27% - plantations, 10% - seeds.

The forests contain the following tree species: acacia – 26%; oak – 15%; ash – 11%; hornbeam – 10%, linden – 9%; oak – 7%; downy oak – 3%; conifers – 1%; various hardwoods – 14%; various softwoods – 4%.

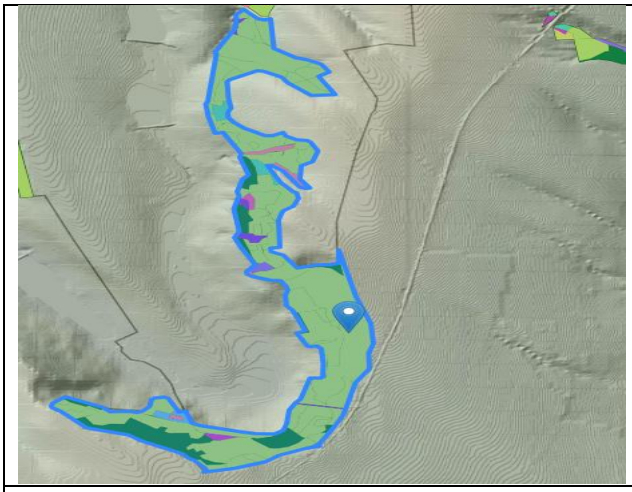


Fig. 7-29: The forest body "Drojdieni" in the close vicinity of the express road M1, Lot no.2

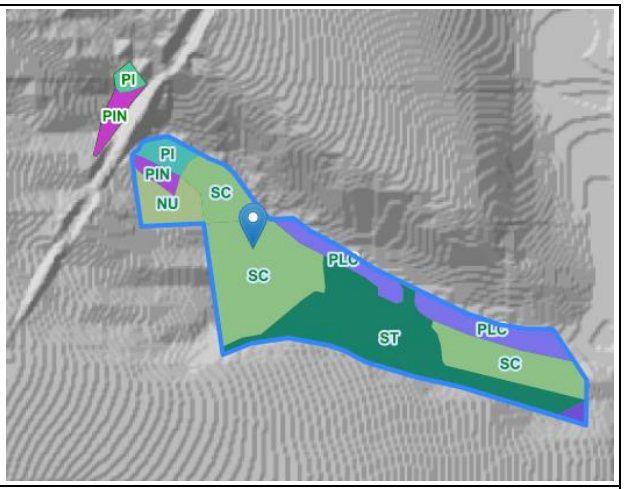



Fig. 7-30: The forest body "Dumbrovita" with mixed trees

As illustrated in Figure 7-29, the Drojdieni forest body, which is managed by the SE "Nisporeni - Silva", covers an area of 269.3 hectares. The forest composition is dominated by acacia (SC) and oak trees (ST).

As illustrated in Figure 7-30, the "Dumbravita" forest body totals 19.15 ha and is covered by a variety of tree species, including acacia (SC), black pine (PIN), grey poplar (PLC), Scots pine (PI), walnut (NU), and more.

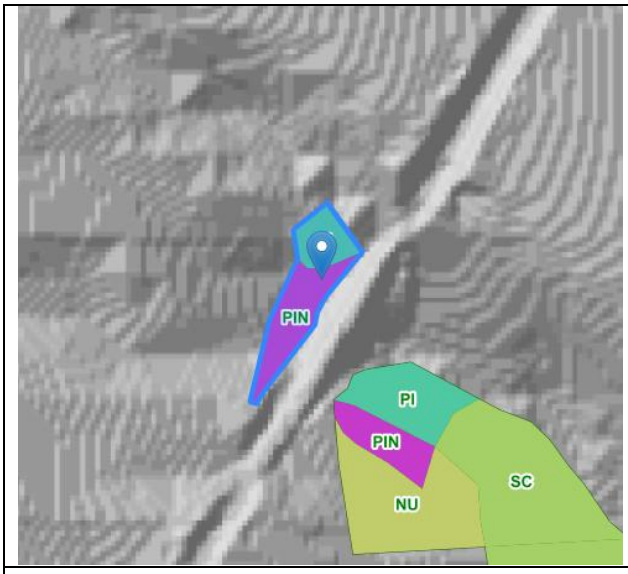



Fig. 7-31: The forest body "Miresti" with mixed trees


Fig. 7-32: The forest body "La Uluce" with mixed trees

The forest body known as "Miresti" (see figure 7-31) covers an area of 0.75 hectares and consists of black pines (Pinus nigra) and Scots pines (Pinus sylvestris).The forest body "La Uluce", figure 7-32, covers an area of 12.53 ha and consists of mixed of trees – walnuts (NU), black pine (PIN), acacia (SC), etc.

The SE "Nisporeni – Silva[61]" is responsible for preserving the most representative forest ecosystems and conserving rare plant species and communities. This is in accordance with Law No. 1538/1998, which saw six valuable forest sectors managed by SE "Silva-Nisporeni" taken under state protection. The total area of these protected natural areas is 4912.9 hectares, which represents 37% of the area covered by forests.

## 7.7 Biological environment

### 7.7.1 Protected flora and fauna of the Emerald Site "Vila Nisporeni"

The objective of the Emerald Site[62] "Vila Nisporeni" is to protect the landscape consisting of fundamental natural forests of downy oak, oak with linden and ash trees, and rare plant species: milk vetch (Astragalus dasyanthus), asparagus (Asparagus officinalis), hare's-foot (A. tenuifolius), elegant coronilla (Coronilla elegans), immortelle (Helichrysum arenarium), perennial honesty (Lunaria rediviva), martagon lily (Lilium martagon), pasque flower (Pulsatilla montana), rowan

[61] Source: https://nisporeni.silvicultura.md/index.php?l=ro

[62] Source: https://crstraseni.md/media/files/files/studiul_de_evaluare_a_biodiversit___ii_906210.pdf#:~:text=%C8%99i%20fauna%2C%20inclusiv%20vegeta%C8%9Bia%20%C8%99i&text=%2D%20%C3%8Entreprinderea%20pentru%20silvicultur%C4%83%20%E2%80%9ENISPORENI%2DSILVA%E2%80%9D%20(Zona%20Sitului%20Emerald%20%E2%80%9EVila%20Nisporeni%E2%80%9D%2C.

(Sorbus torminalis), bladdernut (Staphylea pinnata), Bulgarian onion (Nectaroscordum bulgaricum), tulip (Tulipa biebersteiniana).

Table 7-3: Protected flora and fauna in the Emerald Site "Vila Nisporeni"[63]

| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| 1 | **PROTECTED TREES** | | |
| 1.1 | Downy oak | **Conservation status**<br>Dispărut / Pe cale de disp. / Risc scăzut<br>EX EW CR EN VU cd nt lc<br>Low risk (LC)<br>**Scientific classification**<br>Kingdom: Plants<br>Division: flowering plant<br>Class: Magnoliopsida<br>Order: Fagales<br>Family: Fagaceae<br>Gender: Oak<br>Species: Q. pubescens<br>**Binomial name**<br>**Quercus pubescens** |  |
| 1.2 | Quercus petraea | **Clasificare științifică**<br>Regn: Plantae<br>Diviziune: Magnoliophyta<br>Clasă: Magnoliopsida<br>Ordin: Fagales<br>Familie: Fagaceae<br>Gen: Quercus<br>Specie: Q. petraea<br>**Nume binomial**<br>***Quercus petraea*** |  |
| 1.3 | Tilia | **Clasificare științifică**<br>Supradomeniu: Biota<br>Domeniu: Eukaryota<br>Regn: Plantae<br>Diviziune: Tracheophytes<br>Subdiviziune: Spermatophytes<br>Ordin: Malvales<br>Familie: Malvaceae<br>Subfamilie: Tilioideae<br>**Gen**<br>**Tilia**<br>L., 1753<br>**Tip taxonomic**<br>*Tilia ×europaea* L., 1753 |  |

[63] Source: https://ro.wikipedia.org/wiki/Cartea_Ro%C8%99ie_a_Republicii_Moldova

| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| 1.4 | Fraxinus excelsior | **Clasificare științifică**<br>Regn: Plantae<br>(neclasificat): Angiospermae<br>(neclasificat): Eudicotidae<br>(neclasificat): Asteride<br>Ordin: Lamiales<br>Familie: Oleaceae<br>Gen: *Fraxinus*<br>Specie: ***F. excelsior***<br>**Nume binomial**<br>***Fraxinus excelsior*** |  |
| 1.5 | Alnus glutinosa | **Conservation status**<br>Extinct – Threatened – Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>**Scientific classification**<br>Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Eudicots<br>*Clade*: Rosids<br>Order: Fagales<br>Family: Betulaceae<br>Genus: *Alnus*<br>Subgenus: *Alnus* subg. *Alnus*<br>Species: ***A. glutinosa*** |  |
| 2 | **PROTECTED PLANTS** | | |
| 2.1 | Astragalus dasyanthus | The species is classified as Critically Endangered (CR) in Bulgaria, where it is protected, and as Near Threatened (NT) or Vulnerable (VU) elsewhere in its range, such as in Moldova and Ukraine. |  |
| 2.2 | Asparagus officinalis | **Conservation status**<br>Extinct – Threatened – Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>**Scientific classification**<br>Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Monocots<br>Order: Asparagales<br>Family: Asparagaceae<br>Subfamily: Asparagoideae<br>Genus: *Asparagus*<br>Species: ***A. officinalis*** |  |

| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| 2.3 | Asparagus tenuifolius | **Conservation status**<br>Extinct — Threatened — Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>**Scientific classification**<br>Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Monocots<br>Order: Asparagales<br>Family: Asparagaceae<br>Subfamily: Asparagoideae<br>Genus: *Asparagus*<br>Species: ***A. officinalis*** |  |
| 2.4 | Coronilla elegans | **Scientific classification**<br>Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Eudicots<br>*Clade*: Rosids<br>Order: Fabales<br>Family: Fabaceae<br>Subfamily: Faboideae<br>Genus: *Securigera*<br>Species: ***S. elegans*** |  |
| 2.5 | Helichrysum arenarium | **Scientific classification**<br>Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Eudicots<br>*Clade*: Asterids<br>Order: Asterales<br>Family: Asteraceae<br>Genus: *Helichrysum*<br>Species: ***H. arenarium***<br>**Binomial name**<br>***Helichrysum arenarium*** |  |

| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| 2.6 | Lunaria rediviva | **Scientific classification**<br>Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Eudicots<br>*Clade*: Rosids<br>Order: Brassicales<br>Family: Brassicaceae<br>Genus: *Lunaria*<br>Species: ***L. rediviva***<br>**Binomial name**<br>***Lunaria rediviva*** |  |
| 2.7 | Lilium martagon | **Scientific classification**<br>Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Monocots<br>Order: Liliales<br>Family: Liliaceae<br>Subfamily: Lilioideae<br>Genus: *Lilium*<br>Species: ***L. martagon***<br>**Binomial name**<br>***Lilium martagon*** |  |
| 2.8 | Pulsatila montana | **Scientific classification**<br>Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Eudicots<br>Order: Ranunculales<br>Family: Ranunculaceae<br>Subfamily: Ranunculoideae<br>Tribe: Anemoneae<br>Genus: ***Pulsatilla*** Mill. |  |
| 2.9 | Sorbus torminalis | **Conservation status**<br>Extinct – Threatened – Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>**Scientific classification**<br>Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Eudicots<br>*Clade*: Rosids<br>Order: Rosales<br>Family: Rosaceae<br>Genus: ***Torminalis*** |  |

| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| 2.10 | Staphilea pinnata | **Scientific classification**<br>Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Eudicots<br>*Clade*: Rosids<br>Order: Crossosomatales<br>Family: Staphyleaceae<br>Genus: *Staphylea*<br>Species: ***S. pinnata*** |  |
| 2.11 | Nectaroscordum bulgaricum | **Scientific classification**<br>Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Monocots<br>Order: Asparagales<br>Family: Amaryllidaceae<br>Subfamily: Allioideae<br>Genus: *Allium*<br>Subgenus: *A.* subg. *Nectaroscordum*<br>Species: ***A. siculum*** |  |
| 2.12 | Galanthus nivalis | **Conservation status**<br>Extinct – Threatened – Least Concern<br>EX EW CR EN VU NT LC<br>Near Threatened (IUCN 3.1)[1]<br>CITES Appendix II [2]<br>**Scientific classification**<br>Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Monocots<br>Order: Asparagales<br>Family: Amaryllidaceae<br>Subfamily: Amaryllidoideae<br>Genus: *Galanthus*<br>Species: ***G. nivalis*** |  |
| 2.13 | Tulipa biebersteiniana | The species is classified as Critically Endangered (CR), where it is protected in Republic of Moldova, and as Near Threatened (NT) or Vulnerable (VU). |  |

| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| 2.14 | Paeonia[64] tenuifolia | The species is classified as Critically Endangered (CR), where it is protected in Republic of Moldova, and as Near Threatened (NT) or Vulnerable (VU). |  |
| 3 | **FUNGIES** | | |
| 3.1 | Agaricus bohusii | Scientific classification<br>Kingdom: Fungi<br>Division: Basidiomycota<br>Class: Agaricomycetes<br>Order: Agaricales<br>Family: Agaricaceae<br>Genus: ***Agaricus*** |  |
| 3.2 | Amanita regalis | Scientific classification<br>Kingdom: Fungi<br>Division: Basidiomycota<br>Class: Agaricomycetes<br>Order: Agaricales<br>Family: Amanitaceae<br>Genus: *Amanita*<br>Species: ***A. regalis*** |  |
| 3.3 | Amanita solitaria | Scientific classification<br>Kingdom: Fungi<br>Division: Basidiomycota<br>Class: Agaricomycetes<br>Order: Agaricales<br>Family: Amanitaceae<br>Genus: *Amanita*<br>Species: ***A. echinocephala*** |  |
| 3.4 | Boletus aereus | Scientific classification<br>Kingdom: Fungi<br>Division: Basidiomycota<br>Class: Agaricomycetes<br>Order: Boletales<br>Family: Boletaceae<br>Genus: *Boletus*<br>Species: ***B. aereus*** |  |

[64] Source: https://nisporeni.silvicultura.md/albumview.php?l=ro&idc=148&id=201

| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| 3.5 | Phylloporus rhodoxanthus | **Scientific classification**<br>Kingdom: Fungi<br>Division: Basidiomycota<br>Class: Agaricomycetes<br>Order: Boletales<br>Family: Boletaceae<br>Genus: *Phylloporus*<br>Species: ***P. rhodoxanthus*** |  |
| 3.6 | Hygrophorus persoonii | **Scientific classification**<br>Kingdom: Fungi<br>Division: Basidiomycota<br>Class: Agaricomycetes<br>Order: Agaricales<br>Family: Hygrophoraceae<br>Genus: ***Hygrophorus*** |  |
| 3.7 | Mutinus caninus | **Clasificare științifică**<br>Domeniu: Eucariote<br>Regn: Fungi<br>Diviziune: Basidiomycota<br>Clasă: Agaricomycetes<br>Ordin: Phallales<br>Familie: Phallaceae<br>Gen: *Mutinus*<br>Specie: ***M. caninus*** |  |
| 4 | **PROTECTED BIRDS** | | |
| 4.1 | Anthus campestris | **Conservation status**<br>Extinct – Threatened – Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>**Scientific classification**<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>Order: Passeriformes<br>Family: Motacillidae<br>Genus: *Anthus*<br>Species: ***A. campestris*** |  |
| 4.2 | Caprimulgus europaeus | **Conservation status**<br>Extinct – Threatened – Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>**Scientific classification**<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>*Clade*: Strisores<br>Order: Caprimulgiformes<br>Family: Caprimulgidae<br>Genus: *Caprimulgus*<br>Species: ***C. europaeus*** |  |

| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| 4.3 | Carduelis carduelis | Conservation status: Extinct (EX, EW) – Threatened (CR, EN, VU) – Near Threatened (NT) – Least Concern (LC); Least Concern (IUCN 3.1)[1]<br>Scientific classification:<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>Order: Passeriformes<br>Family: Fringillidae<br>Subfamily: Carduelinae<br>Genus: *Carduelis*<br>Species: ***C. carduelis*** |  |
| 4.4 | Circus aeruginosus | Conservation status: Extinct (EX, EW) – Threatened (CR, EN, VU) – Near Threatened (NT) – Least Concern (LC); Least Concern (IUCN 3.1)[1]<br>Scientific classification:<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>Order: Accipitriformes<br>Family: Accipitridae<br>Genus: *Circus*<br>Species: ***C. aeruginosus*** |  |
| 4.5 | Crex crex | Conservation status: Extinct (EX, EW) – Threatened (CR, EN, VU) – Near Threatened (NT) – Least Concern (LC); Least Concern (IUCN 3.1)[1]<br>Scientific classification:<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>Order: Gruiformes<br>Family: Rallidae<br>Genus: ***Crex*** Bechstein, 1803<br>Species: ***C. crex*** |  |
| 4.6 | Dendrocopos medius | Conservation status: Extinct (EX, EW) – Threatened (CR, EN, VU) – Near Threatened (NT) – Least Concern (LC); Least Concern (IUCN 3.1)[1]<br>Scientific classification:<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>Order: Piciformes<br>Family: Picidae<br>Genus: *Dendrocoptes*<br>Species: ***D. medius*** |  |
| 4.7 | Dendrocopos syriacus | Conservation status: Extinct (EX, EW) – Threatened (CR, EN, VU) – Near Threatened (NT) – Least Concern (LC); Least Concern (IUCN 3.1)[1]<br>Scientific classification:<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>Order: Piciformes<br>Family: Picidae<br>Genus: *Dendrocopos*<br>Species: ***D. syriacus*** |  |

| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| 4.8 | Emberiza hortulana | Conservation status<br>Extinct / Threatened / Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>Scientific classification<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>Order: Passeriformes<br>Family: Emberizidae<br>Genus: *Emberiza*<br>Species: ***E. hortulana*** |  |
| 4.9 | Ficedula albicollis | Conservation status<br>Extinct / Threatened / Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>Scientific classification<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>Order: Passeriformes<br>Family: Muscicapidae<br>Genus: *Ficedula*<br>Species: ***F. albicollis*** |  |
| 4.10 | Ficedula parva | Conservation status<br>Extinct / Threatened / Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>Scientific classification<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>Order: Passeriformes<br>Family: Muscicapidae<br>Genus: *Ficedula*<br>Species: ***F. parva*** |  |
| 4.11 | Fringilla coelebs | Conservation status<br>Extinct / Threatened / Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>Scientific classification<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>Order: Passeriformes<br>Family: Fringillidae<br>Genus: *Fringilla*<br>Species: ***F. coelebs*** |  |

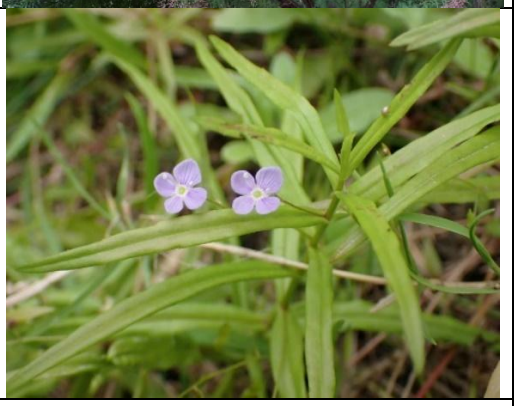
| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| 4.12 | Lanius collurio | Conservation status<br>Extinct / Threatened / Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>Scientific classification<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>Order: Passeriformes<br>Family: Laniidae<br>Genus: *Lanius*<br>Species: ***L. collurio*** |  |
| 5 | **MAMIFERE** | | |
| 5.1 | Talpa europaea | Stare de conservare<br>Dispărut / Pe cale de dispariție / Risc scăzut<br>EX EW CR EN VU NT LC<br>Risc scăzut (LC) (IUCN 3.1)[1]<br>Clasificare științifică<br>Regn: Animalia<br>Încrengătură: Chordata<br>Clasă: Mammalia<br>Ordin: Soricomorpha<br>Familie: Talpidae<br>Gen: *Talpa*<br>Specie: ***T. europaea*** |  |
| 5.2 | Vulpes vulpes | Conservation status<br>Extinct / Threatened / Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>Presumed Extinct / At risk / Secure<br>GX GH G1 G2 G3 G4 G5<br>Secure (NatureServe)[2]<br>Scientific classification<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Mammalia<br>Order: Carnivora<br>Family: Canidae<br>Genus: *Vulpes*<br>Species: ***V. vulpes*** |  |
| 5.3 | Scrof scrofa | Stare de conservare<br>Dispărut / Pe cale de dispariție / Risc scăzut<br>EX EW CR EN VU NT LC<br>Risc scăzut (LC) (IUCN 3.1)[1]<br>Clasificare științifică<br>Regn: Animalia<br>Încrengătură: Chordata<br>Subîncrengătură: Vertebrata<br>Clasă: Mammalia<br>Subclasă: Theria<br>Infraclasă: Placentalia<br>Ordin: Artiodactyla<br>Subordin: Suina<br>Familie: Suidae<br>Gen: *Sus*<br>Specie: ***S. scrofa*** |  |

### 7.7.2 The specific flora of the Nirnova and the Lapusna Rivers Basins

The flora of the Nirnova and Lapusna Rivers Basins is characterised by a diverse array of spontaneous flora species, with a total of 112 genera and 38 families identified in the grasslands of the Rivers Basins. A thorough taxonomic analysis has been conducted to determine the number of species within each family. The following families have been identified in the table 7-1:

Table 7-4: The endangered species of plants from the Nirnova and the Lapusna Rivers Basins

| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| 1 | **ENDANGERED (EN)** | | |
| 1.1 | Carex extensa | Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Monocots<br>*Clade*: Commelinids<br>Order: Poales<br>Family: Cyperaceae<br>Genus: *Carex*<br>Section: *Carex* sect. *Spirostachyae*<br>Species: ***C. extensa*** |  |
| 1.2 | Cerastium perfoliatum | Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Eudicots<br>Order: Caryophyllales<br>Family: Caryophyllaceae<br>Genus: ***Cerastium*** |  |
| 2 | **VULNERABLE (VU)** | | |
| 2.1 | Frankenia pulverulenta | Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Eudicots<br>Order: Caryophyllales<br>Family: Frankeniaceae<br>Genus: *Frankenia*<br>Species: ***F. pulverulenta*** |  |

| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| 2.2 | Spergularia rubra | Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Eudicots<br>Order: Caryophyllales<br>Family: Caryophyllaceae<br>Genus: *Spergularia*<br>Species: ***S. rubra*** |  |
| 2.3 | Tamarix ramosissima | Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Eudicots<br>Order: Caryophyllales<br>Family: Tamaricaceae<br>Genus: *Tamarix*<br>Species: ***T. ramosissima*** |  |
| 2.4 | Veronica scutellata | Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Eudicots<br>*Clade*: Asterids<br>Order: Lamiales<br>Family: Plantaginaceae<br>Genus: *Veronica*<br>Species: ***V. scutellata*** |  |
| **3** | **RARE (R)** | | |
| 3.1 | Agrostis tenuis | Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Monocots<br>*Clade*: Commelinids<br>Order: Poales<br>Family: Poaceae<br>Subfamily: Pooideae<br>Genus: *Agrostis*<br>Species: ***A. capillaris*** |  |

| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| 3.2 | Anchusa gmelinii | Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Eudicots<br>*Clade*: Asterids<br>Order: Boraginales<br>Family: Boraginaceae<br>Subfamily: Boraginoideae<br>Genus: ***Anchusa*** |  |
| 3.3 | Carex secalina | Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Monocots<br>*Clade*: Commelinids<br>Order: Poales<br>Family: Cyperaceae<br>Genus: *Carex*<br>Species: ***C. secalina*** |  |
| 3.4 | Equisetum telmateia | Kingdom: Plantae<br>*Clade*: Tracheophytes<br>Division: Polypodiophyta<br>Class: Polypodiopsida<br>Subclass: Equisetidae<br>Order: Equisetales<br>Family: Equisetaceae<br>Genus: *Equisetum*<br>Subgenus: *E.* subg. *Equisetum*<br>Species: ***E. telmateia*** |  |
| 3.5 | Iris haplophila | Kingdom: Plantae<br>*Clade*: Tracheophytes<br>*Clade*: Angiosperms<br>*Clade*: Monocots<br>Order: Asparagales<br>Family: Iridaceae<br>Genus: *Iris*<br>Subgenus: *Iris* subg. *Limniris*<br>Section: *Iris* sect. *Limniris*<br>Series: *Iris* ser. *Spuriae*<br>Species: ***I. halophila*** |  |

### 7.7.3 Specific fauna for Nirnova, Lapusna and Prut River Basins

The Prut River and its tributaries support a diverse fauna, including fish such as carp and pike, over 230 bird species, and various mammals like the European polecat and fox. The river's riparian habitats also provide important feeding and nesting grounds for many invertebrates, including many endemic species of Collembola (springtails) and Orthoptera (grasshoppers, crickets, etc.).

Table 7-5: The specific fauna for the Prut River (Central Part of Moldova)

| No. | Name of species | Scientific Classification | Pictures |
|---|---|---|---|
| **1** | **FISHES** | | |
| 1.1 | Carp<br>(Common carp)<br>**Vulnerable** | Conservation status<br>Extinct – Threatened – Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>Scientific classification<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Actinopterygii<br>Order: Cypriniformes<br>Family: Cyprinidae<br>Subfamily: Cyprininae<br>Genus: *Cyprinus*<br>Species: ***C. carpio*** |  |
| 1.2 | Pike<br>(Esox Lucius)<br>**Vulnerable** | Conservation status<br>Extinct – Threatened – Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>Scientific classification<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Actinopterygii<br>Order: Salmoniformes<br>Family: Esocidae<br>Genus: *Esox*<br>Species: ***E. lucius*** |  |
| 1.3 | Catfish<br>(Silurus glanis)<br>**Vulnerable** | Conservation status<br>Extinct – Threatened – Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>Scientific classification<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Actinopterygii<br>Order: Siluriformes<br>Family: Siluridae<br>Genus: *Silurus*<br>Species: ***S. glanis*** |  |
| 2 | **MAMMALS** | | |

| | | | |
|---|---|---|---|
| 2.1 | European polecat **(Vulnerable)** | **Conservation status**<br>Extinct – Threatened – Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>**Scientific classification**<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Mammalia<br>Order: Carnivora<br>Family: Mustelidae<br>Genus: *Mustela*<br>Subgenus: *Putorius*<br>Species: ***M. putorius*** |  |
| 2.2 | Red Fox | **Scientific classification**<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Mammalia<br>Order: Carnivora<br>Family: Canidae<br>Subfamily: Caninae |  |
| 2.3 | Muskraft (Ondatra) **Vulnerable** | **Conservation status**<br>Extinct – Threatened – Least Concern<br>EX EW CR EN VU NT LC<br>Least Concern (IUCN 3.1)[1]<br>**Scientific classification**<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Mammalia<br>Order: Rodentia<br>Family: Cricetidae<br>Subfamily: Arvicolinae<br>Tribe: Ondatrini<br>Genus: ***Ondatra*** |  |

| | | | |
|---|---|---|---|
| 2.4 | Wild boar<br>**Vulnerable** | **Conservation status**<br>Extinct: EX EW<br>Threatened: CR EN VU<br>Least Concern: NT LC<br>Least Concern (IUCN 3.1)[1]<br>**Scientific classification**<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Mammalia<br>Order: Artiodactyla<br>Family: Suidae<br>Genus: *Sus*<br>Species: ***S. scrofa*** |  |
| 2.5 | Wildcat | **Conservation status**<br>Extinct: EX EW<br>Threatened: CR EN VU<br>Least Concern: NT LC<br>Least Concern (IUCN 3.1)[1]<br>**Scientific classification**<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Mammalia<br>Order: Carnivora<br>Family: Felidae<br>Subfamily: Felinae<br>Genus: *Felis* |  |
| 3 | **BIRDS** | | |
| 3.1 | Sandpipers | **Scientific classification**<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>Order: Charadriiformes<br>Suborder: Scolopaci<br>Family: **Scolopacidae** |  |
| 3.2 | Heron | **Scientific classification**<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>Order: Pelecaniformes<br>Suborder: Ardei<br>Family: **Ardeidae** |  |

| | | | |
|---|---|---|---|
| 3.3 | Raptors | Montage of extant predatory birds. From top left to right: Eurasian eagle-owl, king vulture, peregrine falcon, golden eagle and bearded vulture<br>**Scientific classification**<br>Kingdom: Animalia<br>Phylum: Chordata<br>Class: Aves<br>*Clade*: Passerea<br>*Clade*: Telluraves |  |
| 4 | **INVERTEBRATES** | | |
| 4.1 | Collembola (springtails) | **Scientific classification**<br>Kingdom: Animalia<br>Phylum: Arthropoda<br>*Clade*: Allotriocarida<br>Subphylum: Hexapoda<br>Class: **Collembola** |  |
| 4.2 | Grasshoppers | **Scientific classification**<br>Kingdom: Animalia<br>Phylum: Arthropoda<br>Class: Insecta<br>Order: Orthoptera<br>Suborder: Caelifera<br>Infraorder: Acrididea<br>Nanorder: **Acridomorpha** |  |
| 4.3 | Crickets | **Scientific classification**<br>Kingdom: Animalia<br>Phylum: Arthropoda<br>Class: Insecta<br>Order: Orthoptera<br>Suborder: Ensifera<br>Infraorder: Gryllidea<br>Superfamily: Grylloidea |  |

## 7.8 Social baseline specific for the Hincesti District

### 7.8.1 General data about the Hincesti and Nisporeni Districts

The Hincesti and Nisporeni Districts are located in the central part of the Republic of Moldova, in the Codri area.

To the west, the districts are bordered by Romania, to the north by Ungheni, Nisporeni and Strășeni districts, to the east by Ialoveni, to the south by Cimișlia. The Hîncești district is crossed by important access roads to Romania and Ukraine (R33, R3, R34 and M1, and other local roads).

The Hâncești district covers an area of 1,483.4 km², representing 4.6% of Moldova's total surface area. The Nisporeni district encompasses 62,900 hectares, with 19,430 hectares designated as arable land, 8,220 hectares allocated for perennial plantations, 15,200 hectares designated as state forest land, and 0.720 hectares classified as state water fund land.

The Hincesti District has a total of 63 localities, including 1 municipality – Hincesti and 62 villages. The territorial-administrative structure includes 39 Mayor Halls.

The Nisporeni District[65] is made up of a total of 39 localities, which are organised in the following way, according to the official profile of the district: one town (Nisporeni, which is also the district capital) and 38 villages. These villages are organized administratively into 22 rural municipalities (11 independent villages and 11 communes comprising several villages).


Fig. 7-33: The administrative map of the Republic of Moldova with Districts Hincesti and Nisporeni

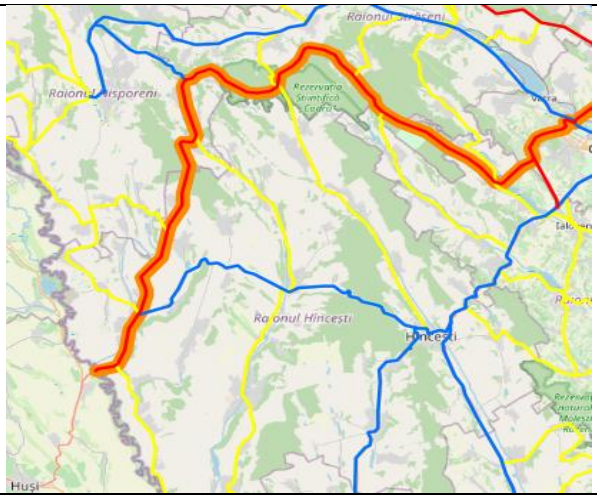



Fig. 7-34: The location of the Huncesti Town

[65] Source: https://nisporeni.md/primariile-raionului/

### 7.8.2 Population of the Hincesti and the Nisporeni Districts

According to the data provided by the National Bureau of Statistics 2024 census data[66], the population of the Hincesti and the Nisporeni Districts are:

- Hincesti District - 69462 people, of which 48.6 % - men and 51.4 % - women;
- Nisporeni District – 36413 people, of which 48.8 % - men and 51.2 % women.

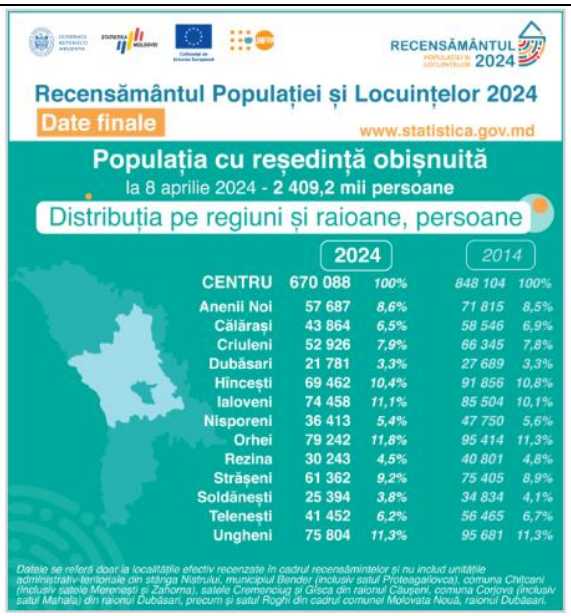



Fig. 7-35: The population of the Hincesti and Nisporeni Districts

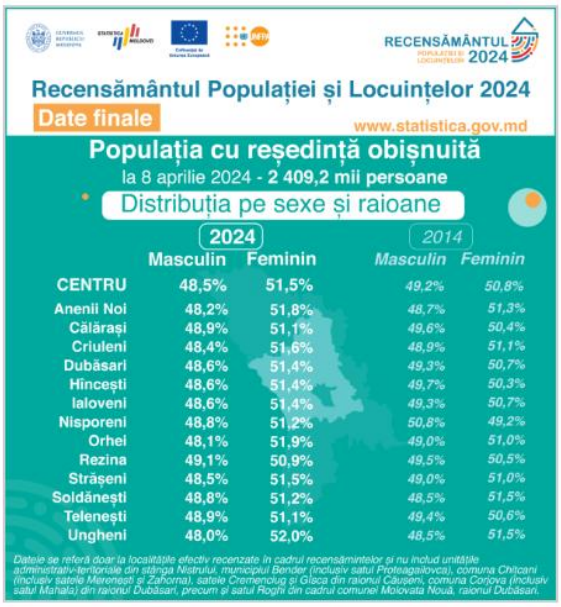



Fig. 7-36: The distribution of the population by sex

The ethnic structure of the Republic of Moldova population looks like this:

- Citizenship of the Republic of Moldova – 2383072 or 98.9 %;
- Citizenship of the Ukraine – 18877 or 0.8 %;
- Citizenship of the Russian Federation – 2040 or 0.1 %;
- Citizenship of the Republic of India – 1055 or 0.05 %;
- Citizenship of the Republic of Romania – 945 or 0.04 %;
- Citizenship of other countries – 3218 or 0.14 %.

[66] National Bureau of Statistics: https://statistica.gov.md/ro/rezultatele-finale-ale-rpl2024-caracteristici-geografice-10123_61875.html

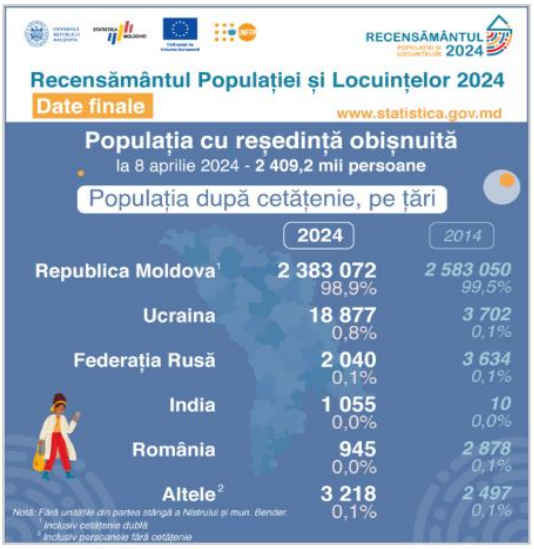



Fig. 7-37: The population of Republic of Moldova with citizenship


Fig. 7-38: Distribution of population by working age

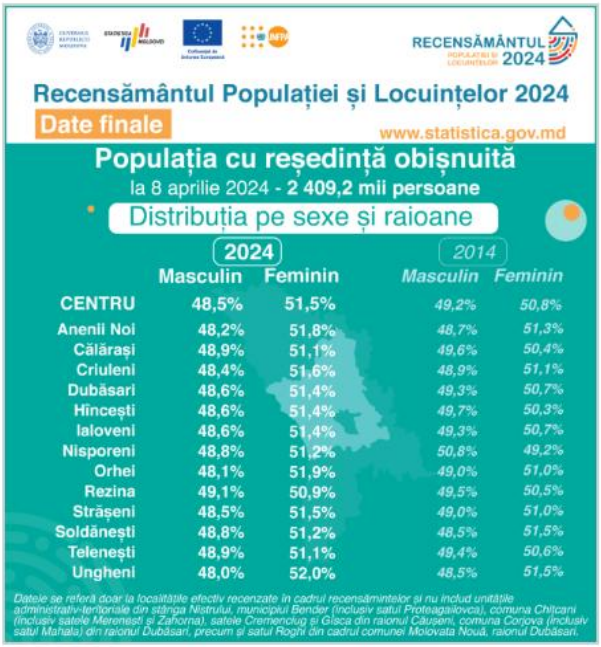



Fig. 7-39: Distribution of the population on urban & rural area

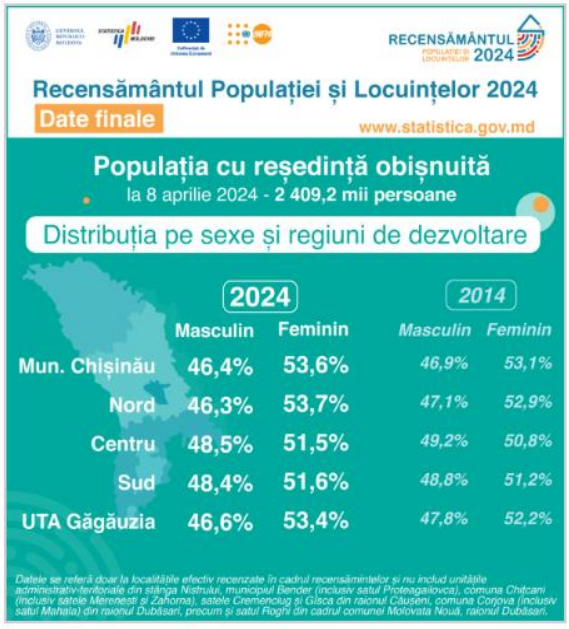



Fig. 7-40: The distribution of population by development regions of the Republic of Moldova

The population on urban and rural distribution in the Hincesti district is: (i) 16.4 % and (ii) 83.6 % and in the Nisporeni District is 25.1% and 74.9%.

### 7.8.3 The Hincesti District

#### 7.8.3.1 General data

The Hincesti district consists of 39 localities[67], divided into 28 administrative-territorial units of level I: (i) 1 city; (ii) 10 communes with 22 villages and (iii) 17 villages, which do not belong to any commune.

The town is well-situated for business, being just 44 km from Leuseni Customs on the border with Romania, 35 km from the Chisinau railway station, 50 km from Chisinau International Airport, 160 km from Marculesti Airport and 172 km from the Free International Port of Giurgiulesti. Its proximity to the most developed economic centre of the country (Chisinau) is quite advantageous, emphasising the need for and importance of creating a competitive investment climate.

In Hincesti District, 28.2% of the total population has direct access to the water supply network. The aqueduct networks total 727.76 km, of which 598.7 km are in full operation. Out of the 63 localities in the district, 30 still have no access to water sources and require investment in the construction or rehabilitation of internal networks for population water supply. 33 localities are provided with drinking or technical water, accounting for 52%.

The sewerage network extends for 85.4 km. Over the past three years, approximately 126.06 km of water supply and sewerage networks have been constructed or renovated in the Hincesti District.

In Hincesti District, the infrastructure and management of household wastes are poorly developed, both quantitatively and qualitatively. In Hîncești Town, the sanitation service is performed by a public enterprise (Municipal Enterprise "Regia[68] APA Canal Hincesti). Improvement of sanitation service was attested in 14 localities from Hincesti District – Mingir, Onești, Lăpușna, Bobeica, Caracui, Fundul Galbenei, Bușeni, Ciuciuleni, Călmățui, Cărpineni, Negrea, Sofia, Bălceana and Voinescu.

In the district, 17 out of 63 localities are connected to the gas network. The development of the sector is largely dependent on the National Gasification Program of the Republic of Moldova. Hincesti Town is gasified at 99 per cent, including all public institutions. In Hincesti District, LLC "Rotalin Gaz" is responsible for the provision of this service in 15 localities, and in two localities, Mingir and Nemţeni, the service is provided by the Operator "Cimișlia Gaz". Thermal energy is supplied to public and educational institutions in the district from their own heating plants, with the exception of Hîncești Town, where all the institutions are connected to the centralized gas supplying system. Hincesti District is supplied with electric power from the Center Electricity Distribution Networks, through Joint Venture Company "Premier Energy" L.L.C. In terms of public lighting, 61 localities from Hincesti District are entirely or partially provided with a functional lighting system.

[67] Source: https://hincesti.md/2016/07/21/lista-prim-riilor-din-raionul-h-nce-ti/
[68] Source: https://primariahincesti.md/s-a-operator-regional-apa-canal-hincesti/

The majority of industrial units are privately owned. In Hincesti District, there are approximately 859 enterprises, with a combined workforce of over 6,800. This figure has been increasing steadily over the past three years. The Hincesti District's key natural resources are its agricultural lands, water areas and forests. The total surface area of the district's agricultural lands is 72,298 hectares, of which 57,989 hectares (80.2 percent) are arable.

### 7.8.3.2 The Hincesti District Council

The Hincesti[69] district is administered through the local public authorities of level I and II, which are constituted following local electoral exercises and operate on the territory of the district under the conditions provided by the law in order to promote the general interests of its inhabitants.

Local councils and mayors of the 39 mayoralties in the district are representative and deliberative authorities. They are responsible for solving the problems of the locality they administer. The management of public affairs of the entire administrative-territorial unit is the responsibility of the Hincesti District Council, which consists of 33 councillors and the district Chairman, elected by the members of the council.

The Hincesti District Council (hereinafter referred to as the District Council) is the elected representative and deliberative authority of the district's population. It is responsible for solving problems of district interest. The District Council is composed of 33 councillors elected under the conditions of the Electoral Code, by universal, equal, direct, secret and freely expressed vote of the district's inhabitants. Among the most important prerogatives of the District Council are the approval and amendment of the annual district budget, the administration of public and private property of the district, decision-making on the design, construction, maintenance and modernisation of roads, bridges, housing fund, approval of strategies, forecasts, plans and programs for the socio-economic development of the district, etc.

The Hincesti District Council has in its subordination the following 5 directorates (i) the Finance Directorate, (ii) the Education Directorate, (iii) the Economy, Construction and Investment Policies Directorate, (iv) the Agriculture and Food Service and (v) the Culture, Tourism, Youth and Sports Directorate.

### 7.8.3.3 The educational process in the Hincesti District

#### 7.8.3.3.1 The Hincesti Construction College

The PI Hincesti College of Construction[70] is the only college that trains technical specialists in the following specialties: (i) Construction and operation of buildings and edifices, (ii) Heat, gas and ventilation supply systems, (iii) Cadastre and territorial organization, (iv) Property valuation and (v) accounting. Approximately 450 students graduate annually in the technical field.

[69] Source: https://hincesti.md/category/organigrama/
[70] Source: https://ipcch.md/admiterea/

#### 7.8.3.3.2 The Public Institutions Professional School Hincesti

Vocational secondary education is focused on equipping students with the skills, competencies and professional aptitudes required to secure employment in specific sectors of the national economy. At the PI Professional School in Hincesti, we offer professional training programmes in the following specialties:
(i) Electro gas welder and gas cutter (3 years);
(ii) Tile layer (3 years);
(iii) Stonemason, mason, plate veneer, baker and leather goods maker (2 years);
(iv) Sewing operator and Baker (1 year).

### 7.8.4 The Nisporeni District

#### 7.8.4.1 General data

The Nisporeni District[71] covers an area of 630 km² and consists of 39 localities, with an estimated population of 36,413 inhabitants and an average gross salary of 8,867 lei. Strategically located just 43.2 km from the Leușeni customs point, 92.7 km from Iași, and 71 km from Chișinău, the district has quick access to domestic and foreign markets, even though it's 270 km from the port of Odessa and 239 km from the port of Giurgiulesti. The local economy is supported by sectors such as agriculture, viticulture, and the food industry.

One innovative project is the Herbafruct[72] micro-cluster, which focuses on the cultivation, processing, and marketing of medicinal, aromatic, and oil-bearing plants. The Nisporeni sub-zone of the Ungheni-Business[73] ZEL operates within the district, covering 26.1 ha (brownfield and greenfield), with access to utilities and the R25 road.

This is also where nationally and internationally renowned companies operate, such as ICS Nires International SRL[74], which specializes in footwear manufacturing, and Nisprofcon, which is active in the construction of residential and non-residential buildings.

#### 7.8.4.2 The Nisporeni District Council

The Nisporeni District Council is the deliberative governing body for the Nisporeni District in the central part of the Republic of Moldova. It oversees the socio-economic development of the region and coordinates local public services.

Members of the Nisporeni District Council and local councils within the district are elected through a proportional representation system based on lists compiled by political parties or electoral blocs. Councilors are elected in a single multi-seat constituency under a list proportional representation

[71] Source: https://nisporeni.md/despre-raion/
[72] Source: https://herbafruct.md/
[73] Source: http://www.freezone-ungheni.md/ro/
[74] Source: https://invest.gov.md/invest_region/nisporeni/

system. Seats are allocated based on the proportion of votes each party list receives. The Nisporeni District Council's Chairman is not directly elected by the public, but rather elected by the members of the District Council after their own direct election by the citizens.

Based on the official structure of the Nisporeni District Council, there are 5 main directorates that function as specialized structural subdivisions:

- General Directorate of Education, Youth, and Sport
- General Directorate of Social Assistance and Family Protection
- Directorate of Finance
- Directorate of Agriculture and Food
- Directorate of Economy and Territorial Development

These directorates are supplemented by smaller administrative units known as Sections and Services, such as the Human Resources and Legal Section and the Archival Service.

### 7.8.4.3 The educational process in the Nisporeni District

#### 7.8.4.3.1 General data

The Nisporeni General Directorate of Education, Youth, and Sport (DGITS Nisporeni) is a structural subdivision of the Nisporeni District Council responsible for coordinating and implementing educational, youth, and sports policies within the district.

Its primary roles and functions include:

- Policy Implementation: Ensures the application of the Education Law, Youth Law, and the Ministry of Education and Research orders at the local level;
- Educational Management: Manages public educational institutions, including primary schools and kindergartens, through the organization of recruitment contests for directors and teaching staff;
- Strategic Planning: Develops annual and monthly plans to address critical issues such as preventing school dropout, curriculum management, and anti-corruption measures;
- Specialized Services: Operates dedicated units such as the Psychopedagogical Assistance Service (supporting children with special needs) and Human Resources;
- Monitoring & Reporting: Evaluates the state of the district's education system and publishes activity and institutional evaluation reports;
- Youth & Sport Promotion: Coordinates district-level youth programs and sports activities, following guidelines from the Ministry of Education and Research.

#### 7.8.4.3.2 The Public Institution Vocational Professional School

The Vocational School[75] from the Nisporeni Town is located at the 12 Suveranității St., and offers technical vocational training. It has recently undergone modernizations, including the renovation of

[75] Source: https://spnisporeni.md/admiterea/

student dormitories to provide interactive learning spaces and better living conditions. The Vocational School in the Nisporeni Town offers training across several specialized departments and professions primarily focused on agriculture, services, and technical trades. Based on current educational offerings, the school provides training in the following areas:

**Agricultural Production:**

- Cultivator of Berries: A specialized program launched to address the growing berry sector in Moldova.
- Beekeeping (Apiculture): Students learn professional hive management and honey production.

**Service & Gastronomy:**

- Cook/Chef: Training for the food service industry.
- Waiter: Focuses on hospitality and service standards.

**Technical & Craft Trades:**

- Electrician: Providing technical skills for electrical installation and maintenance.
- Tailor/Seamstress: Vocational training for the textile and garment industry.

Programs at the school typically last two years**,** during which students may be eligible for benefits such as hostels, scholarships, and meals. The school also participates in modern initiatives like the **"Joboteca"** program, which helps students develop digital skills and career management competencies for the transition to the labor market

### 7.8.4 Land acquisition process during the design stage

During the technical design procedure, agricultural (private) and forest (public) lands were identified, and the Employer acquired the lands in accordance with the applicable legislation of the Republic of Moldova.

Table 7-6: List of land areas acquired for the reconstruction of the M1 road between km 9+208 and km 38+800

| No. | Cadastral number | Area required for construction | Area required for safety | Purchased by | Localities |
|---|---|---|---|---|---|
| 1 | 5347203<br>Hincesti District | 3.33823 ha | 12.23331 ha | Employer<br>NRA | Ivanovca com.<br>Onesti com.<br>Bujor vil.<br>Miresti com. |
| 2 | 6017105<br>Nisporeni District | | | | Boltun vil.<br>Iurceni com.<br>Cristesti vil. |
| | **Total area** | **3.33823 ha** | **12.23331 ha** | | |

In accordance with the approved technical design, the land required for construction (shown in green) and other land needed for traffic safety (shown in blue) have been acquired.

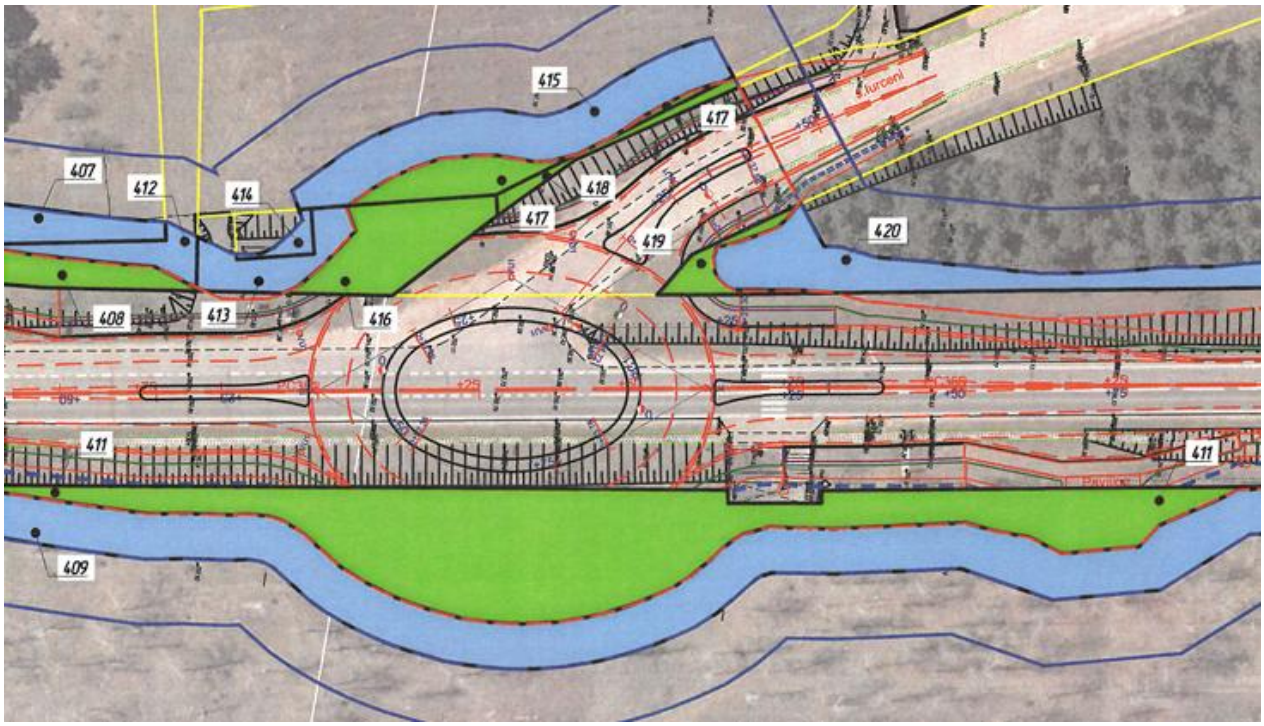



Figure 7-41: The Plan of the land area required for reconstruction (PC92+07 – PC 99+10)

*Limita lucrarilor conform proiectului*
**Limit of works according to the project**

*Zona de siguranta drumului, conform NCM D.02.01:2024*
**Road safety zone, according to NCM D.02.01:2024**

*Zona de protectie drumuui, conform NCM D.02.01:2024*
**Road protection zone, according to NCM D.02.01:2024**

*Suprafata necesara pentru constructie*
**Area required for construction**

*Suprafata necesara pentru Zona de siguranta*
**Area required for the Road Safety Zone**

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# 8 THE RISK ASSESSMENT PROCEDURE

## 8.1 General procedure

The purpose of the environmental and social assessment procedure is to determine the aspects that can be controlled or influenced, as well as their associated environmental and social impacts, taking into account the specific construction and operational stages. The procedure outlines the responsibilities, approach and methodology for identifying environmental and social hazards and assessing and controlling risks specific to construction, operation and decommissioning.

The risk assessment objectives are the following:
- Identify and assess ES risks and impacts of and to the project;
- Adopt a mitigation hierarchy approach to address ES risks and impacts from project activities on workers, affected communities and the environment;
- Integrate human rights risks and impacts into the assessment and management process;
- Implement an ESMS commensurate with the ES risks and impacts of the project, including monitoring and reporting provisions;
- Require continuous improvement of the client's ES performance.

## 8.2 Environmental and Social Impact Assessment process specific for design stage

### 8.2.1 General

The objectives of the environmental and social risk assessment are to identify and categorise risks that could affect the project, and to document these. The outcome of the risk identification process is a comprehensive, non-overlapping list of risk mitigation measures. The risks identified at the detailed design stage form the basis for estimating and managing the project's mitigation measures. Changes and improvements to the design also lead to new risks, which must be assessed and controlled. Risks that form part of the ESMP shall be monitored, controlled and managed throughout the design process.

Although specific risks for the rehabilitation of the M1 express national road in the Hincesti and Nisporeni Districts were identified during the technical design stage for which specific mitigation measures must be established to control the risks. The environmental impact assessment procedure involves identifying risks during the design process, assessing them, and controlling them by providing mitigation measures to protect the environment and community.

It specifies the requirements that enable the Employer to achieve the intended outcomes of developing the Project's specific ESMP for the rehabilitation process of the M1 express road (Lot No. 2), and to control risks during the construction and operational stages.

The flow chart of the risk assessment procedure during the design process[76] is presented in the figure below.

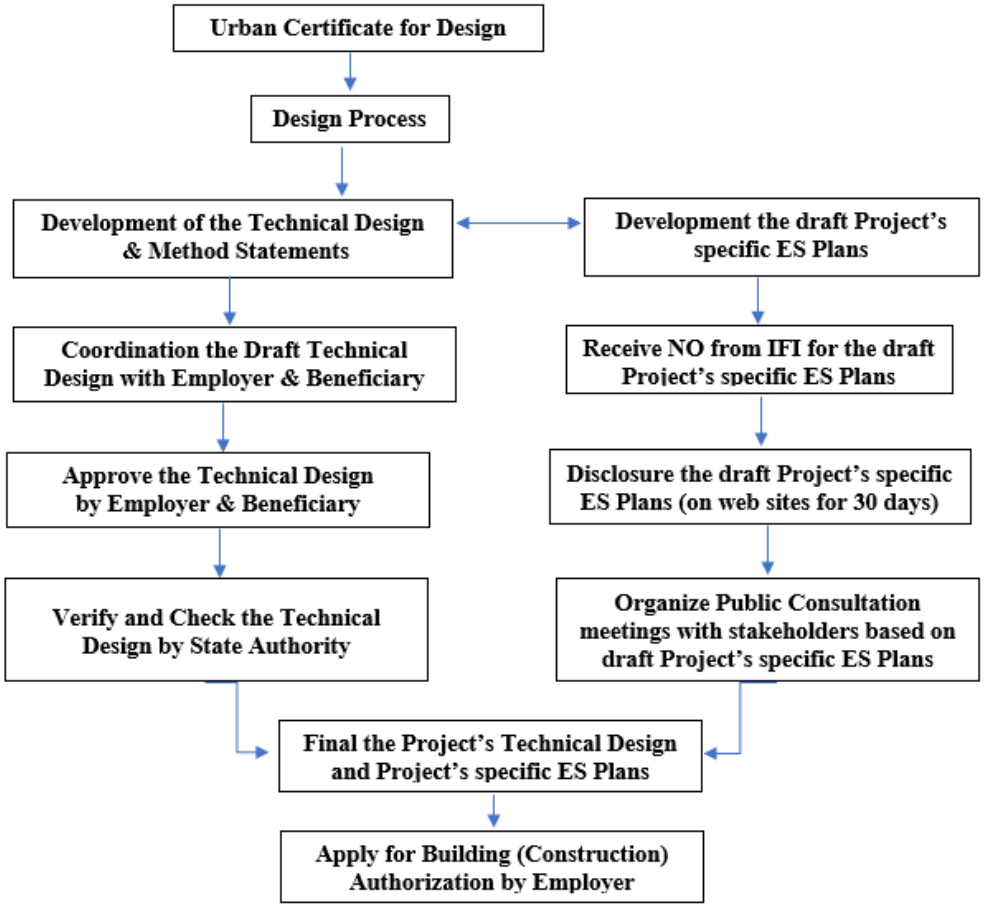


Figure 8-1: Risks assessment procedure during the Design Process

The environmental and social assessment process, which is specific to the detailed design stage, is intended to determine the environmental and social aspects, assess risks and establish requirements for controlling risks and setting functional requirements for contributing to sustainable development during the construction and operation phases:

- protecting the environment by preventing or mitigating adverse ES impacts;
- mitigating the potential adverse effect of ES conditions on the construction & operational stages;
- assisting the Contractor and the Employer in the fulfilment of compliance obligations;
- enhancing environmental and social performances;
- controlling or influencing the way the Contractor's products and services are designed, manufactured, distributed, consumed and disposed by using a life cycle perspective that can

[76] The Design process shall be started mandatory based on the presence of the Planning Town urbanism Certificates for Design issued by the Hincesti and Nisporeni District Councils.

prevent ES impacts from being unintentionally shifted elsewhere within the life cycle;
- achieving financial and operational benefits that can result from implementing environmentally sound alternatives that strengthen the Beneficiary's market position;
- communicating environmental and social information to relevant stakeholders.

### 8.2.2 Screening criterion for risks assessment

#### 8.2.2.1 The applicable Republic of Moldova ES requirements

In accordance with the terms of Environmental Permit No. 24 of 12 August 2025, issued by the Environmental Agency for the Moldova Road Project V and the relevant construction and ES legislation of the Republic of Moldova, it is essential that the following requirements are included in the design documentation to ensure the quality criteria for the designed facility are met:
**A** - strength and stability;
**B** - operational safety;
**C** - fire safety;
**D** - hygiene, human health, restoration and protection of the environment;
**E** - thermal insulation, water repellent and energy saving,
**F** - protection against noise, and
**G** – sustainable use of natural resources.

The preparation of the design documentation is performed based on the planning town Urbanism Certificate for Design (UCD) issued by the Hincesti and Nisporeni District Councils, based on the technical concept for design with initial data for design and the results of technical surveys, taking into account the solutions adopted in urban planning documentation.

The detailed design must align with the valid standards and regulations in the Republic of Moldova to ensure the acquisition of necessary approvals, permits and licenses.

#### 8.2.2.2 Stakeholders participation on the design process

The following documents have been received before starting the detailed design process for rehabilitation process of the express national road M1 Lot no.2 issued by the State Supervision Agencies in order to be in compliance with applicable Republic of Moldova ES requirements:
- Planning Town Urbanism Certificate for Design issued by the Hincesti and Nisporeni District Councils,
- Sanitary Notice issued by the Hincesti and Ungheni Centres for Public Health,
- Archaeological Notice issued by the National Archaeological Agency,
- Cultural Notice issued by the Ministry of Culture,
- Technical Notice issued by the National Agency for Technical Supervision,
- Technical conditions issued by stakeholders (Company "Premier Energy", SA Moldtelecom, SE Moldelectrica, SE Apele Moldovei, etc.);
- Method Statements specific for rehabilitation process of the express national road M1 Lot no.2.

### 8.2.2.3 The Project Area of Influence

The Project Area of Influence (PAI) is defined as the geographical area encompassed by the linear corridor of the express national road M1 (km 9+208 – km 38+800). It encompasses the potential impacts on the lives, livelihoods, health or well-being of external stakeholders and the natural environment specific to Lot No. 21 from the Hincesti and Nisporeni Districts.

The reconstruction process will take place within the existing linear corridor of the M1 Lot No. 2. The possible environmental impacts will mainly relate to the reconstruction process itself. The PAI will thus include the actual footprint of the existing corridor, which may be temporarily used for the rehabilitation process. This will include: (i) access and transport roads; (ii) storage of materials and equipment; and (iii) the area of the contractor's yard (site organisation), etc.

During the construction stage, the General Contractor shall comply with the environmental and social requirements described in this document. Prior to commencing construction activities, the Contractor shall develop its own Environmental & Social Management Plan (ESMP) and explain how it will control residual environmental and social risks in order to comply with the requirements of this document.

At the operational stage, the Employer will be responsible for carrying out regular maintenance on the new purchased equipment and maintaining the new road. This will ensure the equipment is both sustainable and operational. Key maintenance activities will include operating the installed equipment in accordance with the manufacturer's recommendations and the Employer's maintenance programme.

### 8.2.2.4 Identification of potential impacts and mitigation measures

The identification of potential impacts of the proposed project on the environment and social conditions was based on the following information:

- existing information about the baseline condition specific to the Hincesti and Nisporeni Districts;
- technical characteristics of the investment; and
- similar experience with other projects.

The impact assessment, which is conducted on a case-by-case basis depending on certain environmental and social aspects, focuses on specific conditions that must be met in order to ensure the safety and integrity of the project.

As a result of evaluation, the potential impacts of the Project on the environmental and social resources, mitigation measures were identified that the Project will take in order to avoid, minimise/reduce and mitigate adverse impacts and to enhance positive impacts where applicable.

Where relevant, the anticipated impact was compared with the applicable environmental requirements and standards. The impact assessment methodology considered potential changes to the environment and society in relation to the following criteria: (i) extent/scale, (ii) duration, (iii)

intensity/magnitude and (iv) probability. The criteria used for impact assessment are presented in Table No. 8-1.

**Table no. 8-1: Matrix for evaluation of significance of potential impacts**

| Significance Criteria | | |
|---|---|---|
| **Extent/ Scale** | On-site | Impacts limited to the boundaries of development site, namely: areas around the development site |
| | Local | Impacts that affect areas nearby the boundaries of development site |
| | Regional | Impacts that affect important environmental resources at the regional scale, define by administrative boundaries, habitats/ecosystems types |
| | National | Impacts that affect important environmental resources or important areas at the national scale |
| **Duration** | Temporary | Impacts are predicted to be of short duration and intermittent / occasional |
| | Short-term | Impacts are predicted to be only during the construction period |
| | Long-term | Impacts are predicted to be only during the project lifetime |
| | Permanent | Impacts are predicted to cause a permanent change in the affected receptors or resources, beyond the project lifetime |
| **Intensity/ Magnitude** | Negligible | The impact on the environment is not detectable |
| | Low | Small detectable change to environment but with proper planning does not cause damage to the environment |
| | Moderate | Larger detectable change to environment that can be controlled by implementing the proper measures |
| | High | Fundamental change to the environment that altered the natural functions and processes |
| **Probability** | No probability | The impact should not occur during normal operation and conditions |
| | Average probability | The impact is likely to occur sometimes |
| | High probability | The impact is likely to occur during the project lifecycle |

The significance of potential impacts, a function of extent, duration, intensity/magnitude of the impact and the probability of impact occurring, was categorized into the following significance categories:

- Negligible: no detectable change to the environment;
- Minor: the impact magnitude is sufficiently small and well within relevant environmental limits and standards;
- Moderate: the impact magnitude is within relevant environmental limits and standards;
- High: the regulatory limits and standards may be extended or large magnitude impacts occur to resources/receptors.

The proposed mitigation measures in the event of a significant environmental impact are consistent with the requirements of relevant legislation and policies, as well as international practices.

In order to establish the significance of the impact in a socio-economic environment where positive impacts may occur, the same matrix was used. The same scale was used to assess the positive impacts, marked as 'positive', e.g. 'Negligible (positive)'.

For positive impacts the following significance categories were defined:

- Negligible (positive): positive changes affecting a few individuals;
- Minor (positive): positive benefits to a small section of the community;
- Moderate (positive): changes affecting a significant section of the community;
- High (positive): massive changes positively affecting majority of population.

## 8.3 Organization of the package Technical Design and ES impact assessment reports

The risk assessment report developed during the design stage includes:

a) The Basic Design coordinated and approved by the Employer and the Hincesti and Nisporeni District Councils,
b) Technical Detailed Design and report for checking and approval by the State Authority;
c) The Project's specific ESMP, LMP, HSS (Code of Conduct), etc. for rehabilitation process and the consultation report;
d) The revised Stakeholder Engagement Plan during the detailed design stage.

The Project's specific ESMP, LMP and Health, Safety and Security (Code of Conduct) for the rehabilitation process set out requirements to be kept under control. Residual risks are to be managed by the General Contractor during the construction stage and by the Employer during the operational stage. The Project's specific ESMP, LMP and the HSS & Code of Conduct for site are part of the Tender Documents (Technical Design Package). They will be revised by the EBRD and receive a "Non-Objection" before being approved by the Employer.

The Project's specific ESMP, LMP, Code of Conduct, and SEP for the site will be published on the Employer's web pages and the EBRD website. These documents can be printed in a required number of copies upon request and distributed to designated recipients. The Project's specific ESMP, LMP, Code of Conduct, and SEP for the rehabilitation process of the M1 Lot No. 2 road will be held by stakeholders in conditions of integrity and legibility. These documents will be available for consultation by all stakeholders and the workforce. The Project's specific ESMP, LMP, Code of Conduct, PCM and SEP may be furnished to the State Authorities, customers, etc. upon prior approval of the Employer.

During the construction stage, the General Contractor will use this document to develop its own Contractor's ESMP, OHS, Code of Conduct Plan, etc. and to evaluate compliance with requirements established in the Project's specific ESMP, LMP, Code of Conduct, CPP, PCM and SEP for site.

At the operational stage, the Beneficiary will use this document to comply with applicable environmental and social laws of the Republic of Moldova and International Best Practices.

## 8.4 Risk assessment process specific for rehabilitation process of the road M1

### 8.4.1 General

Taking into account the location of the existing corridor in the Hincesti and Nisporeni Districts and the scale of the project, as well as the characteristics of the receiving natural and human environment, it is expected to be site-specific, localised, small-scale and temporary, and limited to the construction stage. Such impacts can be mitigated through appropriate site management and construction organisation by the contractor. Therefore, the proposed mitigation and enhancement measures are implemented in full, and no irreversible and significant negative environmental and social impacts shall occur as a result of location, design, construction or operation.

Most commonly the significance of potential Project impacts is assessed based on the magnitude of the predicted effect and the sensitivity of the receiving environment. Once the environmental sensitivity and impact magnitude have been assessed, the two criteria are scaled and weighed by means of a matrix, to determine impact significance (Table 8-2). This chapter gives a brief overview of the types of impacts that may occur during construction or operation of the Project and assesses their respective magnitude. Impact significance is then assessed according to the methodology presented in the present document.

### 8.4.2 Sensitivity of Impacts during construction and operational phases

The **Sensitivity** of the receiving environment and social is one among two criteria to assess the **Significance** of impact.

The sensitivity of impact is determined by the following three main criteria:
a) special regime of protection (applicable ES laws of Republic of Moldova and EBRD, etc.);
b) value of receptor (social – community and workforce HS, environmental – reduce consumption of resources and reduce pollution, etc.);
c) direction & intensity.

### 8.4.3 Sources of Impacts

The rehabilitation process of the express national road M1 Lot no.2 that could be sources of impact are presented in the table below.

Table 8-2: Source of impact (activities) specific for the project life cycle (construction and operational)

| DP | DEMOLITION PROCESS |
|---|---|
| 1 | Cutting the upper layer of asphalt |
| 2 | Crushing the concrete |
| 3 | Demolish the bridges |
| 4 | Excavate and remove the foundation soil |
| 5 | Remove the old road infrastructure (culverts, OHTL, etc.) |

| | |
|---|---|
| 6 | Remove the OHTL tower |
| **CP** | **CONSTRUCTION PHASE** |
| 1 | Preparatory works |
| 2 | Earthworks |
| 3 | Pavement |
| 4 | Bridges and overpasses |
| 5 | Drainage structures |
| 6 | Incidental construction |
| 7 | Road marking and signing |
| 8 | Engineer services |
| **OP** | **OPERATIONAL & DECOMMISSIONING PHASE** |
| 1 | Operation & Maintenance of the new equipment |
| 2 | Workforce Competence and trainings |
| 3 | Compliance with technical & ES laws and requirements |
| 4 | Emergency preparedness & response |
| 5 | Purchase of materials, goods & service (management of contractors) |
| 6 | Monitoring and evaluation and reporting process (EE data) |
| 7 | ES&OHS |

### 8.4.4 Intensity and Direction of Impact

The intensity of impact and its direction as well as possible interaction between components are reflected in the table below:

Table 8-3: Intensity & Direction of impact

| *Intensity:* High | Moderate | Low | Negligible | *Direction:* ( + ) – positive impact; ( - ) – negative impact | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Performance Requirements** | **CONSTRUCTION PHASE** | | | | | | | | | | | |
| | **Mobilisation & Site Organisation, Plants, Borrow pit** | **Demolition process (ex. road infrastructure, bridges, etc.)** | **Preparatory works** | **Earth works** | **Pavement** | **Bridges & overpasses** | **Drainage structures** | **Incidental construction** | **Road marking & signing** | **Engineer services** |
| **PR no.2 Labour and working conditions** | | | | | | | | | | |
| Human resources & labour management (Influx of workforce) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Working relationships | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Wages, benefits and conditions of works | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Migrant workers | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Working's organisations | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Forced labour | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Child labour | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Non-discrimination and equal opportunity | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Collective dismissals | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Complaint mechanism | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Contracted workers | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Supply-chain workers | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| **PR no. 3 Resource Efficiency and Pollution Prevention and Control** | | | | | | | | | | |
| Resource efficiency and circular economy | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Water | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Wastes | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Pollution prevention and control | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| GHG | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Safe use, management of hazardous substances & materials | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Pest management | None | None | None | None | None | None | None | None | None | None |
| Noise and vibration | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| **PR no. 4 Health, Safety and Security** | | | | | | | | | | |
| OHS | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Community health and safety | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| GBV&H, Child Sexual Abuse | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Hazardous materials safety | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Product safety | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Psychosocial risks | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Health and safety risks in community services | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Traffic and road safety | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Natural and climate change hazards | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Exposure to diseases | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Emergency preparedness and response | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Security | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Worker welfare and accommodation | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| **PR no.5 Land acquisition, restriction on land use and involuntary resettlement** | | | | | | | | | | |
| RAP implementation | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| **PR no. 6 Biodiversity conservation and sustainable management of living natural resources** | | | | | | | | | | |
| Biodiversity conservation (assessment of risks & impacts) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| The protection and conservation of biodiversity, priority biodiversity features and critical habitats | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Legally protected and internationally recognised areas of biodiversity value | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Invasive alien species | None | None | None | None | None | None | None | None | None | None |
| **PR no. 8 Cultural Heritage** | | | | | | | | | | |
| Archaeological sites | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | None | None | None | None | None |
| Cultural landscape with natural features | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | None | None | None | None | None |
| Movable cultural heritage | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | None | None | None | None | None |
| Underwater cultural heritage | None | None | None | None | None | None | None | None | None | None |
| **PR no.10 Information disclosure and stakeholder engagement** | | | | | | | | | | |
| Engagement during project implementation and external reporting (revised SEP) | (+) | (+) | (+) | (+) | (+) | (+) | (+) | (+) | (+) | (+) |
| The Project's Complaint Mechanism | (+) | (+) | (+) | (+) | (+) | (+) | (+) | (+) | (+) | (+) |
| Changes to Project ES Risks and Impacts | (+) | (+) | (+) | (+) | (+) | (+) | (+) | (+) | (+) | (+) |

| Specific traffic aspects/Traffic Road Management | Mobilisation & Site Organisation, Plants, Borrow pit | Demolition process (ex. road infrastruct., bridges, etc.) | Preparatory works | Earth works | Pave ment | Bridges & overpasses | Drainage structures | Incidental construction | Road marking & signing | Engineer services |
|---|---|---|---|---|---|---|---|---|---|---|
| Visibility | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Slope | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Road plantations | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| The communications facility, the exact place of their location | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Sectors with a high risk of accidents | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Conditions for rainwater capture and discharge | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |
| Ensuring road traffic safety | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) | ( - ) |

| Environ. & Social Components | OPERATIONAL PHASE | | | | | | |
|---|---|---|---|---|---|---|---|
| | ES & OHS | Workforce Competence | Compliance with ES laws & requirements | Emergency preparedness & response | Purchase of materials, goods & service | M&E process | Operation & Maintenance |
| PR 1 Assessment and management of ES risks &impacts | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) |
| PR 2 Labour and working conditions | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) |
| PR 3 Resource Efficiency and Pollution Prevention & Control | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) |
| PR 4 Health, Safety and Security | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) |
| PR 6 Biodiversity conservation & sustainable management of living natural resources | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) |
| PR 10 Information disclosure & stakeholder engagement | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) | ( + ) |

### 8.4.5 Summary Assessment of Receptor Sensitivity

The following Table 8-3 gives an overview of the sensitivity of the relevant components of the receiving environment against possible Project impacts during construction and operation.

As it was expected, during the construction phase, the following ES aspects were given a **Moderate level of Sensitivity** during the entire rehabilitation process of the road M1 Lot no.1:

**Labour and Working Conditions**

- Human resources and labour management
- Working relationships
- Wages, benefits and conditions of works
- Migrant workers
- Working's organisations
- Forced labour
- Child labour
- Non-discrimination and equal opportunity
- Collective dismissals
- Complaint mechanism
- Contracted workers
- Supply-chain workers

**Resource Efficiency and Pollution Prevention and Control**

- Resource efficiency and circular economy
- Water
- Wastes
- Pollution prevention and control
- Noise and vibration

**Health, Safety and Security**

- OHS
- Social aspects GBV&H, Child Sexual Abuse
- Psychosocial risks
- Health and safety risks in community services
- Traffic and road safety
- Natural and climate change hazards
- Exposure to diseases
- Emergency preparedness and response
- Security
- Worker welfare and accommodation

**Cultural heritage**

- Archaeological sites
- Movable cultural heritage

**Information Disclosure and Stakeholder engagement**

- Revised SEP and Complaint Mechanism
- Changes to Project ES risks and Impacts

The rest of assessed risks were given the **Low level of Sensitivity** during the entire rehabilitation process of the road M1 Lot no.1

The General Contractor shall use the PR 1 Assessment and management of ES risks and impacts for assessing residual risks and developing its own Contractor's ESMP, Contractor's Labour and Working Conditions, Contractor's OHS Plan, Contractor's Code of Conduct and the Supervision Consultant shall approve the documents before starting the construction activity on site.

During the operational phase, the sensitivity of almost all receptors reaches the Moderate level due to the fact that the intensity of the impact becomes moderate and operational work on site to be controlled by the Employer.

Table 8-4: Sensitivity of the receiving environment against potential Project impacts

| Valued ES components | Sensitivity |
|---|---|
| **Demolition and Construction Phase** | |
| Labor and Working Conditions | **Medium** |
| Resource Efficiency and Pollution Prevention and Control | **Medium** |
| Health, safety and security, including traffic safety and security | **Medium** |
| Cultural heritage | **Medium** |
| Information Disclosure and Stakeholder engagement | **Medium** |
| Biodiversity conservation and sustainable management of living natural resources | **Medium** |
| **Operational Phase** | |
| Assessment and management of ES risks &impacts | **Low** |
| Labour and working conditions | **Low** |
| Resource Efficiency and Pollution Prevention & Control | **Low** |
| Health, Safety and Security | **Low** |
| Biodiversity conservation & sustainable management of living natural resources | **Low** |
| Information disclosure & stakeholder engagement | **Low** |

### 8.4.6 Magnitude of Impacts

The second criterion to assess impact significance is the **magnitude** of the impact. Impact magnitude is assessed by evaluating two factors:
a) *spatial extent* (spatial extent describes the geographical reach of an impact area or the range within which an effect is observable), and
*b) duration (*describes the length of time during which an impact is observable and also takes other related issues, such as timing and periodicity, into account).

### 8.4.7 Magnitude of Impacts during Construction Phase

The key construction activities that may adversely affect the natural or the human environment will include but may not necessarily be limited to the following (i) **Regional level**: Impacts that affect important environmental resources at the regional scale, define by administrative boundaries of the

Hincesti District, habitats/ecosystems types and (ii) **Short-term**: Impacts are predicted to be only during the construction period.

The construction activity will affect the natural and human environment in the existing corridor of the road M1 and specific during the reconstruction process of the road.

### 8.4.8 Magnitude of impacts during the operational phase

The key activities that may adversely affect the environmental and social aspects will include but may not necessarily be limited to the (i) **Regional scale** and (ii) **Long-term** till the end of the life cycle of the express road M1.

The abovementioned new activities are common for the Employer during the operation and maintenance of the new rehabilitated express road as well as for the stakeholders involved in the compliance process. The proposed activities for operational stage shall be implemented and controlled by using the Employer resource for development of the ESMS.

### 8.4.9 Summary of Key Project Activities and Impact Magnitude

The key activities associated with construction and operation processes are listed in the Table 8-5 and based on identified impacts at the design stage and the assessment of timing, scale, size, and duration the magnitude of possible environmental impacts and risks identified at the detailed design stage is rated as follows:

**Table 8-5: Key Project activities and magnitude of potential impacts**

| Activity/Effects | |
|---|---|
| **Construction Phase** | |
| Labour and Working Conditions | **Medium (-)** |
| Resource Efficiency, Pollution Prevention and Control<br>(use of resources, soil and water protection, noise and vibration, dust, etc.) | **Medium (-)** |
| Health, safety and security | **Medium (-)** |
| Cultural heritage | **Medium (-)** |
| Information Disclosure and Stakeholder engagement | **Medium (+)** |
| Biodiversity conservation and sustainable management of living natural resources | **Medium (-)** |
| Stakeholders participation | **Medium (+)** |
| **Operation Phase** | |
| Assessment and management of ES risks &impacts | **Minor ( + )** |
| Labour and working conditions | **Minor ( + )** |
| Resource Efficiency and Pollution Prevention & Control | **Minor ( + )** |
| Health, Safety and Security | **Minor ( + )** |
| Biodiversity conservation & sustainable management of living natural resources | **Minor ( + )** |
| Information disclosure & stakeholder engagement | **Minor ( + )** |

## 8.5 Impact Significance

As was shown above, there are no environmental or human receptors that would be highly sensitive to potential Project impacts or risks during either construction and operation phases, in all cases the receptor sensitivity against potential changes and project impacts / risks would be Moderate to Minor.

As shown in the risk assessment matrix, the combination of 'moderate' sensitivities with 'medium' impact magnitude cannot result in 'significant' negative impacts.

Table 8-6: Risk assessment matrix

| **Impact magnitude** | **Sensitivity** | | |
|---|---|---|---|
| | **High** | **Medium** | **Low** |
| **Major** | High | High | Moderate |
| **Moderate** | High | **MODERATE** | Minor |
| **Minor** | Moderate | Minor | Negligible |

The conclusion of this assessment is thus that potential adverse impacts caused by reconstruction process of the existing road M1 Lot no.1 will be of Moderate for construction and Minor for operational stages.

The general contractor on the construction site shall effectively control the residual risks resulting from Moderate Impacts (moderate x medium) in terms of magnitude and sensitivity. This can be achieved by identifying specific mitigation measures and implementing common environmental and occupational health and safety management arrangements during construction.

For the operational stage, the employer can effectively control the impacts of magnitude and sensitivity resulting from Minor Impact (moderate x low) by using common environmental and occupational health and safety management arrangements and mitigation measures implemented by the employer as part of its ESMS.

The identified impacts and the proposed mitigation measurements are provided in the chapter 9 of this report.

## 8.6 Potentially positive impacts

### 8.6.1 Construction Phase

The Project will facilitate Moldova's economic development and its physical integration by improving transit connections and corridors between its cities and between Moldova and neighbouring countries, including Ukraine and Romania. The Project will also improve the road infrastructure between cities and on key corridors/regional connections through the rehabilitation of

the M2 Chisinau ring road (section 2) and the M1 Chisinau to Leuseni road section, which are in poor condition.

The investments will be centred on the reconstruction process of the express national road M1. This will be carried out in accordance with the applicable national construction standards, the BAT (Best Available Techniques) approach, financial affordability, economic feasibility, environmental soundness, social acceptability and public acceptance. Furthermore, it will meet the conditions of the location permit, the conditions of the zoning plan and other requirements specified in the opinions of the authorities and persons.

The positive impact of the reconstruction process is also considered to be the involvement of local stakeholders from the Hincesti and Nisporeni Districts in the construction process. This is to ensure that the project is implemented without disturbing the community and businesses around the site, and without any complaints or other legal issues. The reconstruction process will begin with consultations with stakeholders on the construction site and the presentation of the construction authorisation, the installation of the panel with communication channels, and other useful information.

The positive impact of the reconstruction process is to consult and involve local stakeholders from the Hincesti and Nisporeni Districts, disclose technical, environmental and social documents, establish a communication channel (complaint mechanism) and external reporting, integrate the new reconstruction facility into the Hincesti and Nisporeni Districts landscape by planting trees along the road, and coordinate with local stakeholders to change the location of movable cultural heritage.

The reconstruction process has been shown to have a positive impact, as demonstrated by the training of selected young people from the Hincesti and Nisporeni Districts. This initiative is intended to ensure the economic inclusion of the affected community and is being implemented with the support of the National Employment Agency (ANOFM).

### 8.6.2 Operational Phase

During the operational phase, the Employer NRA will ensure compliance with all applicable environmental and social laws. They will also operate and maintain the new energy efficiency equipment in accordance with the relevant laws of the Republic of Moldova and the GIP. The Beneficiary will extend its Environmental and Social Management System by controlling specific operational risks of the new equipment. They will do this by assigning designated roles, responsibilities and authority for risk control. The Employer will also hire competent and trained personnel to operate the new equipment. They will also monitor its operational performance and report to stakeholders and all other interested parties.

## 8.7 Potentially negative impacts

### 8.7.1 Construction Phase

**Air Pollution will result in** the demolition and reconstruction process and other works will affect the air quality on the construction site. Impacts on air quality refer to any discharge into the air of solid substances, aerosols, gases, radiation, or energy, whether point sources (e.g. incineration stack) or diffuse (e.g. fugitive dust emissions from road used by trucks).

The dust-reduction measures on the worksites and along hauling roads used by project vehicles include:

- Reduction of vehicle speed in any sensitive area;
- Regular spray of water to maintain humidity of the ground surface & the cohesion of fine particles (dust – $PM_{2.5}$ and $PM_{10}$);
- Avoidance and cleaning of sludge deposited on public roads;
- Reduction of potential dust-emitting zones.

When storage, transport or handling of bulk materials is exposed to the wind, the Contractor shall implement necessary dust abatement measures as water spraying of the area, covering truck loads, covering temporary spoil deposit or any other appropriate method. Dust emission shall be monitored by the General Contractor on a visual basis within worksite and along sensitive sections of roads.

Worksite noise levels shall comply with national and international health & safety norms and standards and must under no circumstances expose workers to intensities higher than 80 dBA without certified ear protection.

On site equipment shall be high-quality machinery, fitted with the latest sound insulation systems, particularly for worksites located in densely urbanized areas.
Project related vehicles shall be rigorously monitored and maintained to keep engines and exhaust systems in a condition that minimizes noise.

All noise generating works as drilling, hammering, etc. shall be done during daytime. In densely populated areas, noisy works shall be stopped between 6 PM and 6 AM except otherwise requested by the Supervision Consultant (Engineer) under certain conditions.

**Water pollution** will result in affecting the surface and ground water quality during the construction activities on site by executing demolition and reconstruction works and other.

No wastewater shall be discharged into natural water bodies or urban open drainage if any of the quality criteria considered is above the permitted limit as per the applicable emission standards of the Republic of Moldova. In such case, a treatment to reduce the pollutant load within permissible limits shall be applied to the wastewater prior to discharge into the natural environment.

Storm water from fuel /oil storages areas, workshops or garages shall be transferred to an oil separator before discharge into the open drainage network.

Wastewater from batching activities and cleaning of concrete trucks shall be collected in sedimentation ponds and buffered by acid in order to reach pH in the range 6-8 prior to discharge into drainage system. Sludge from cleaning maintenance can be mixed with spoil in a spoil disposal area.

The General Contractor shall perform regular maintenance of the wastewater treatment facilities in order to ensure permanently the efficiency of the treatment and the compliance with applicable effluent quality standards.

Sludge resulting from sedimentation shaft maintenance shall be discharged in the appropriate facility and in advance coordinated with the Supervision Consultant and the Employer.

The General Contractor shall regularly monitor water quality of: (i) Treated effluent from wastewater facilities, (ii) Sedimentation ponds related to batching activities, (should batching be done on site), (iii) Drainage water from workshop sites, hazardous products storage sites, and food preparation/ consumption areas and (iv) Drinking water storages and distribution points.

**Soil pollution** will result in affecting the soil quality during the reconstruction activities on site by executing construction works, installation of equipment, construction activities and other.

Destruction or erosion of natural soil shall mainly occur on the site because of reconstruction process. Soil pollution can be caused by:

- Accidental spills of fuels, oils and chemicals (e.g.: lubricants, paints, solvents, resins, acids, etc.) in the storage areas / at the Contractor's yard;
- Accidental dripping or spill in the process of refuelling and maintenance of vehicles and machinery at a construction site;
- Infiltration of leachate from uncontrolled waste disposal and construction material;
- Residual concrete from construction or discharged from concrete trucks during the pumping station construction
- Soil degradation due to the removal of fertile layer or mixing with sterile soil;
- Temporary increase of soil erosion on the sites of excavation works;
- Erosion caused by the removal of vegetation, soil works and the use of heavy machinery / equipment in the riverbed or in its vicinity;
- Soil pollution by accidental spillage of fuel, lubricants and chemicals, by spreading cement milk on the platforms of concrete preparation or in the localities where the concrete is used;
- Soil contamination by infiltration of various leaks, improper storage or handling of waste or construction materials,
- Bad weather conditions (wash out the soil).

**Biodiversity protection** will result in affecting the flora and fauna during reconstruction process on site (widening process of the road) on site by executing excavation process and reconstruction the road and other.

Destruction the existing local flora and disturbance of the fauna shall mainly occur temporary on the site because of the reconstruction process:

- It is forbidden to collecting plants/herbs from the forests and fields/meadows, etc.

- It is not allowed fishing in the reconstruction area;
- It is not allowed hunting in the reconstruction area;
- It is forbidden to set the sire on site or incinerate the solid wastes;
- It is forbidden to make noise mare than 80 dB or signals;
- It is forbidden to leave construction solid wastes on the field or near the agricultural/pasture lands;
- It is forbidden to cut trees, bushes and other vegetation without permission of the Supervision Officer;
- It is forbidden to leave leaks and spills on the construction site (near the site);
- It is forbidden to cut trees without environmental permit issued by the Environmental Agency;
- Install safety barriers on construction site in order avoid entrance of animals on site;
- Evacuate every day leftover wastes from construction site in order not to allowed animals on construction site (wild boar, foxes, etc.)
- It is forbidden to storage waste in unauthorized locations or in places not designated for this purpose;
- selective collection of waste in specially designated areas, in containers labeled with the type of waste they are intended for;
- It is forbidden to storage of any type of waste direct on the ground;
- Train employees to comply with the rules of conduct regarding the management of hazardous and non-hazardous wastes;
- Provide the necessary materials for intervention in the event of accidental pollution;
- Trigger the emergency plans in the event of accidental pollution.
- Other environmental aspects as per Environmental Permit no.24 and Biodiversity Survey[77].

**Waste generation, including hazardous material and wastes** result in executing reconstruction process on site. The domestic and construction wastes generated on construction site (existing corridor) shall be managed properly by the General Contractor by collecting, labelling, temporary storage, evacuation from construction site.

The hazardous materials and wastes cover both hazardous materials to be used for the construction activities (engine oil, diesel, paint, solvents etc.) and the hazardous waste resulting from activities (used engine oil, used car batteries, contaminated soil, painting cans, etc.).

The General Contractor shall be responsible for the collection, transportation, storage and safe handling of all hazardous products used or produced on the worksites by its personnel and subcontractors.

[77] Source: https://crstraseni.md/media/files/files/studiul_de_evaluare_a_biodiversit___ii_906210.pdf#:~:text=%C8%99i%20fauna%2C%20inclusiv%20vegeta%C8%9Bia%20%C8%99i&text=%2D%20%C3%8Entreprinderea%20pentru%20silvicultur%C4%83%20%E2%80%9ENISPORENI%2DSILVA%E2%80%9D%20(Zona%20Sitului%20Emerald%20%E2%80%9EVila%20Nisporeni%E2%80%9D%2C.

Hazardous materials and wastes include all substances which represent a threat to human health and safety and to the environment and biodiversity. This includes particularly substances which are explosives, inflammable (with a flash point between 21 °C and 55 °C), harmful to health (irritant, toxic, carcinogenic, mutagenic), corrosive, ecotoxic and more generally dangerous for the environment.

**Labour and Occupational Health and Safety (L&OHS)** will result in affecting direct and sub-contracted employees on construction site during all construction process.

To manage temporary and localized construction impacts of moderate magnitude construction standard mitigation measures as presented in the Project's specific Labour Management Procedure which is a stand-alone document and shall be attached to this document. The scope of the Project's specific LMP is to identify hazards, assess risks and establish mitigation measures, set functional requirements for controlling risks to acceptable levels.

During construction stage, typical Labour & OHS risks could occur as a result of the following:

- Human resources management and working conditions;
- Operation and movement of heavy machinery and equipment;
- Excavation works > 1.2 m deep;
- Handling of bulky heavy equipment;
- Working at heights/Working in confined space;
- Temporary exposure to elevated levels of noise, fumes, heat, dust & weather conditions;
- Material and equipment transport,
- Solid and hazardous wastes generated during the construction process,
- Electrical equipment installation and testing.

OHS risks may occur locally at the construction site and are of the temporary nature. Considering the limited numbers of workers involved the magnitude of potential OHS impacts is moderate depending on the type of work considered. Overall, the type of construction works involved do bear some risks, however these risks can be considered as more or less 'standard' and can be manged by appropriate site management, training / sensitisation and OHS arrangements.

**Behaviour of the workforce on the construction site** will result in affecting direct and contracted employees on construction site during all construction process.

Unsafe behaviours of employees result in many injuries, fatalities, and property losses that occur during construction stage. The General Contractor shall take measures that all employees have a thorough understanding of the Construction Site ESHS Rules and requirements to avoid incidents and accidents.

The Contractor shall ensure that direct and contracted workforce follow the Construction Site ESHS Rules and requirements of the Contractor's ESMP, OHS Plan and Code of Conduct that are set in place on construction site and the scope of training and awareness process based on above mentioned Plans are for ensuring workforce health and safety on construction site.

There are many instances that can and will happen when the direct and contracted workforce are negligent of the rules:

- Not using proper PPE on construction site;
- Using PPE incorrectly;
- Not using caution when operating heavy machinery;
- Operating machinery that you are not authorized to operate;
- Using broken equipment or equipment that needs maintenance;
- Not using safety equipment correctly (Seatbelts, safety glasses, etc.);
- Not using safety equipment at all (Seatbelts, safety glasses, etc.)
- Not wearing safety equipment at all can result in you being more grievously injured in the case of an accident;
- Performing tasks without being qualified for;
- Poor housekeeping of the work area;
- Not making emergency exits visible;
- Too many workers in one area at a time;
- Using alcohol, drugs and other forbidden substances on construction site;
- Workers are not ready for starting the working process by being fatigues, under alcohol influences, etc.;
- Inappropriate behaviour of workers using offended, discriminatory, sexist and swearing language, and other social aspects-based SEA, SH, GBV, TiP, HIV-AIDS, STDs, etc.

**Community health and safety, including traffic safety** will result in affecting the community during the construction activities in the Hincesti and Nisporeni Districts by executing the reconstruction process of the express national road M1 Lot no.2.

The General Contractor shall establish site access rules, implement and maintain these throughout the construction period. Access control procedure to the site must consider that non-employees shall at all times be provided with fulltime supervision while on site.

The Contractor shall prepare a specific training program for the drivers to ensure safety prevention measures for on-site and off-site road traffic are enforced. This training shall apply to all drivers recruited by the General Contractor as well as to the drivers of its sub-contractors.
Safety equipment (brakes, horn, lights, reverse warnings, etc.) of the vehicle fleet shall be properly maintained and kept operational all time. Before starting the construction works on site, a Traffic Management Plan shall be developed by the General Contractor taking into consideration requirements established in the Technical Design, and shall be coordinated with the Hincesti and Nisporeni Road Police and approved by the Supervision Consultant (Engineer).

**Cultural heritage (Chance find)** will result in affecting the buried archaeological artefacts from soil by the excavation process on construction site.

Even if archaeological artefacts are discovered during excavation works, the contractor must activate the approved Chance Find Plan to stop construction and liaise with the engineer and the state authorities responsible for protecting cultural heritage.

The accidental discovery of cultural resources (chance finds) covers the actions to be taken from the discovering of a heritage site or item to its investigation and assessment by a professional archaeologist or other appropriately qualified person to its rescue or salvage.

If cultural resources (e.g. archaeological sites, historical sites, remains, objects, graveyards or individual graves, etc.) are discovered when undertaking small-scale construction activities, civil works and/or renovation activities, the following procedure will be executed, but not limited to:

1. Halt the construction activities around the chance find to avoid any (or further) damage;
2. Report immediately the discovery to the Contractor supervisor or the Engineer;
3. Delineate and fence the discovered site or area and provide a 25 meters buffer zone around all sides of the find;
4. Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard will be arranged until the responsible form the Ministry of Culture and National Archaeological Agency, can take over;
5. Forbid any removal of the objects by the workers or other parties;
6. Note the type of archaeological materials you think you have encountered, their location (GPS) and if possible, the depth below the surface the find occurred;
7. Photograph the exposed materials, preferably with a scale (e.g. a file binder, coin, rules etc.);
8. Notify the responsible local authorities (Chisinau City Hall) and the Ministry of Culture and National Archaeological Agency immediately (within 24 hours or less);
9. Responsible local authorities would oversee protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the Ministry of Culture and National Archaeological Agency. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; these include the aesthetic, historic, scientific or research, social, and economic values;
10. Decisions on how to handle the finding shall be taken by the responsible authorities. This could include changes in the physical investment layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration, and/or salvage;
11. Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities;
12. The mitigation measures could include the change of proposed Project design/ layout, protection, conservation, restoration, and/or preservation of the sites and/or objects;
13. Construction work at the site could resume only after permission is given from the responsible local authorities concerning safeguard of the heritage; and
14. The physical investment proponent is responsible for cooperating with the Ministry of Culture and National Archaeological Agency to monitor all construction activities and ensure that the adequate preservation actions are taken and hence the heritage sites protected.

In addition, the Contractor is obliged to communicate the chance find discovery at the earliest possible date to the Engineer and the Employer.

### 8.7.2 Operational Phase

During operational phase, the Employer (Beneficiary NRA) shall comply with applicable ES law and EBRD requirements in order to assess risks and establish mitigation measures to reduce potentially negative impacts. Failure to comply with the designer's recommended actions for operating and maintaining the express road will negatively impact the quality of the road infrastructure.

The Employer shall extent its Environmental and Social Management System by controlling specific operational risks of the new achieved equipment and new rehabilitated road with designated roles, responsibilities and authority for controlling risks. The Beneficiary shall also hire competent and trained personnel in order to operate the new facility and also monitor and operational performances and report to the stakeholders and all other interested parties.

# 9 ENVIRONMENTAL & SOCIAL MANAGEMENT PLAN (ESMP)

## 9.1 General Approach

Given the type and significance of the expected construction and operational impacts outlined in this document and the technical data provided in the Detailed Design, the mitigation measures to be implemented under this Project will be mostly standard, rather than site-specific, for the construction and operational phases.

## 9.2 Mitigation Measures for Construction Phase

### 9.2.1 General

The requirements outlined in this ESMP are designed to assist the General Contractor in developing the Contractor's Environmental and Social Management Plans (CESMPs).

The Contractor shall appoint Health, Safety, Environmental and Social Managers (HSSE), whose duties throughout the construction period will be primarily connected to environmental and social management and health and safety of the construction site. The EHSS Manager shall act as the focal point during the construction phase of the project and shall coordinate the contractor's environmental and social activities with subcontractors and the Supervision Consultant, Employer, the Hincesti and Nisporeni District Councils, State Supervisory Agencies (Environmental Inspectorate, Territorial Centre for Public Health and National Inspectorate for Technical Surveillance) and Central Public Authorities, in implementation, supervision, reporting, and follow-up actions with regard to the ESMP.

### 9.2.2 Mitigation of Environmental and Social Impacts

#### 9.2.2.1 Labour and working condition

In order to minimize and reduce impacts on labour and working condition on construction site, the following mitigation measures and principles transposed in the national laws of the Republic of Moldova:
(a) Respect for fundamental human rights and freedoms;
(b) Respect for the best interests of the child;
(c) The confidentiality of information concerning the private lives of victims and presumed victims of human trafficking;
(d) Legality;
(e) Free access to justice;
(f) Non-discrimination;
(g) A multidisciplinary and cross-sectoral approach;
(h) Unconditional access to protection and assistance for victims of human trafficking;
(i) Equal treatment of all forms and types of national or transnational human trafficking, whether or not they are linked to organised crime;

(j) International cooperation.
The Contractor shall develop a Human Resource Policy, OHS Plan, Code of Conduct in compliance with the Project's specific LMP, Code of Conduct and train all direct and indirect workforce, community workers, supply chain workers and other types of workers present on construction site.

### 9.2.2.2 Air pollution

In order to minimize and reduce impacts on air quality and control dust, noise and vibration on construction site, the following mitigation measures shall be implemented:

- The Contractor shall use equipment and adopt construction and transport methods which comply with atmospheric emissions of the Republic of Moldova or by related international reference guidelines,
- The dust-reduction measures on the worksites and along hauling roads used by project vehicles include: (i) Reduction of vehicle speed in any sensitive area, (ii) Regular spray of water to maintain humidity of the ground surface and the cohesion of fine particles, (iii) Avoidance and cleaning of sludge deposited on public roads and (iv) Reduction of potential dust-emitting zones.
- When storage, transport or handling of bulk materials is exposed to the wind, the dust abatement measures shall be implemented like as water spraying of the area, covering truck loads, covering temporary spoil deposit or any other appropriate method;
- Dust emission shall be monitored by the Contractor on a visual basis within worksite and along sensitive sections of roads;
- Reduce speeds on unpaved roads until water sprinkling measures are in place;
- Maintain all construction machinery and equipment's in good working condition;
- Vehicles carrying aggregate materials will be sheeted at all times,
- It is forbidden to burn solid wastes (paper and cardboard, food, etc.) or dry vegetation on the construction site,
- Dyes and solvents in the construction process shall be kept covered all time to avoid excess evaporation in the hot weather.

### 9.2.2.3 Noise and vibration

In order to minimize and reduce impacts on noise and vibration and identify where possible offset the potential effects of the construction process the following mitigation measures shall be implemented:

- Use of vehicles and machines with a high degree of quietness, equipped with vibration damper with regular technical inspections carried out to date;
- Compliance with daily working hours;
- During day time, procedures will be established to reduce the noise causing nuisance and disturbances, both for workers and local communities;
- Activities during the holidays, nights or at the weekend will be avoided or coordinated with the Engineer;
- On site equipment shall be high-quality machinery, fitted with the latest sound insulation systems, particularly for worksites located in densely urbanized areas;

- Project related vehicles shall be rigorously monitored and maintained to keep engines and exhaust systems in a condition that minimizes noise;
- All noise generating works as drilling, hammering, etc. shall be done during daytime, noisy works shall be stopped between 10.00 PM and 6 AM except otherwise requested by the Engineer under certain conditions.

### 9.2.2.4 Water protection

In order to minimize and reduce impacts on surface and ground water quality during the rehabilitation process the following mitigation measures shall be implemented:

- No wastewater shall be discharged into natural water bodies or urban open drainage if any of the quality criteria considered is above the permitted limit as per the applicable emission standards of the Republic of Moldova.
- Grey water from canteens/mobile toilets shall be directed through an oil separator before being discharged into a septic tank;
- Storm water from fuel /oil storages areas, workshops or garages shall be transferred to an oil separator before discharge into the open drainage network;
- Wastewater from batching activities and cleaning of concrete trucks shall be collected in sedimentation ponds and buffered by acid in order to reach pH in the range 6-8 prior to discharge into drainage system;
- Sludge from cleaning maintenance can be mixed with spoil in a spoil disposal area;
- The regular maintenance of the wastewater treatment facilities shall be done in order to ensure permanently the efficiency of the treatment and the compliance with applicable effluent quality standards;
- Sludge resulting from sedimentation shaft maintenance shall be discharged in the appropriate facility;
- The Contractor shall carry out or subcontract the monitoring of effluent quality pursuant to the specification issued by the municipal enterprise the Hincesti and Nisporeni Apa Canal;
- The wastewater from vehicle washing system shall be managed properly in order to prevent the soil and water pollution and ensuring that local roads are kept clean and site roadways are clear of mud;
- The vehicle washing system shall be located in a remote part of the construction site in order not to interfere with reconstruction process of the road;
- Providing portable toilets for the workers involved in construction process;
- Sign a contract service with the ME Hincesti and Nisporeni Apa Canal for portable toilets service and inspect and clean them regularly;
- Evacuate the content of the mobile toilets (liquid wastes) to the closest wastewater treatment plant and monitor the execution of the requirement;
- Establishment of all construction zones at distance from nearby surface waters so that the impact on water to be diminished;
- Minimize work on soft ground in wet weather, wherever possible;
- Keep all engines in good working condition and repair any leaking equipment immediately in special areas;

- Prevent erosion and run-off of sediment from construction works, including roads, to watercourses;
- Controlled storage of construction materials and waste generated during the construction stage on distinct areas of the site;
- Avoidance of ground storage of materials that exposed to rainfall might lead to groundwater aquifer infiltrations (sealing of storage areas);
- Forbidding watercourse crossing by vehicles and machinery during construction;
- Forbidding discharges of any water or other materials to watercourses, the storage of soil or other materials close to watercourses;
- Provision of oil/ storm water tank, placed bellow energy transformer on a concrete foundation for protection against transformer oil spill;
- In case of emergency situation, the leakage and spills kits shall be present in the construction site and all pollutant shall be collected and removed from the field;
- Emergency equipment shall be additionally present on construction site to prevent fire and other emergency situations;
- Rain water shall be evacuated from the construction site by covering the excavated pit with polyethylene/poly propylene sheet to avoid accumulation of rain water in the pit.

#### 9.2.2.5 Soil protection

In order to minimize and reduce impacts on soil quality during the reconstruction process of the road the following mitigation measures shall be implemented:

- Controlled storage of construction materials and waste generated during the construction works on distinct areas of the site;
- Avoidance of ground storage of materials that exposed to rainfall might lead to soil and groundwater aquifer infiltrations (sealing of storage areas);
- Minimize excavation and removal of surface cover in the areas affected by the construction activities (if applicable);
- Provision of parking areas for the vehicles and equipment involved in construction works. Work area shall be equipped with absorbent materials and/ or neutralizing substances for rapid intervention in case of accidental spillage of fuel and/or lubricants;
- Deposits of fertile soil resulting from the pits excavation will be placed in secure location with run-off and erosion prevented and close to the working area not affecting adjacent surfaces. During wet weather periods, open excavations will be protected by covering with polythene, off-road driving shall be avoided and ruts shall be repaired as soon as possible;
- Limit, where it is possible, vehicle movements in off-road areas mainly in areas with softer soils and on steeper slopes;
- Steep terrain shall be avoided during the transportation of construction material by using alternative routes or use light vehicles where appropriate. Suitable engineering will be undertaken to ensure that the stability of the slope is maintained, including in areas prone to slides;
- For the transport of construction elements and new equipment shall be used, wherever possible, existing roads and way-leaves;

- The waste and package waste generated during construction activities will be managed in compliance with the relevant legal provisions (selective collection without contact with soil, water; reuse or disposal);
- Upon completion of works will be undertaken activities for land restoration and revegetation, including re-vegetation/ seeding with native species to complement natural vegetation regeneration and to improve ground cover;
- Detailed site investigation shall be performed during the construction stage of the Project in order to avoid eroded soils and landslides;
- Excavation of the fertile layer shall be done based in the provision of the technical Detailed Design and removed black soil shall be storage in a special place designated/agreed by/with the LPA;
- The sterile soil shall be collected on construction site on a special place in order not to contaminate black soil and finally shall be used on the landscaping process;
- For construction activity, it is forbidden to open new quarry or to excavated for searching construction materials in the close proximity of construction site or outside the construction site;
- Construction activity shall be planned in a way to reduce the compaction of the black soil and at the end of construction compacted portion of plot shall be ploughed;
- In the wet and rainy weather, it is forbidden to use local and national roads with muddy wheels, wheels shall be washed at the exist form construction site;
- It is forbidden to set a fire for burdening dry vegetation, dry debris or other solid wastes.

### 9.2.2.6 Flora and fauna protection

In order to minimize and reduce impacts on flora and fauna during the reconstruction process the following mitigation measures shall be implemented:

- The construction works shall be performed on existing corridor of the road;
- The construction process shall be monitored by the General Contractor and all subcontractor working on-behalf of the General Contractor shall abide the Project's specific ESMP and Contractor's ESMP;
- The General Contractor shall delineate the construction by marking working zones with signs or fencing in order to keep vehicles and people away from sensitive area;
- The Contractor shall use quieter machinery, restrict work hours, and use shielded lighting to minimize disturbance;
- The Contractor shall train workers on wildlife awareness, reporting sightings, and legal protections.
- The Contractor shall train works force about restriction to collect plants for the forest and other goods from the forest;
- The Contractor shall train workforce about interdiction to set the fire or burn the dry vegetation and debris;
- The Contractor shall train workforce about interdiction to hunting and fishing;
- In the vicinity of forest, it is forbidden to make noise or use horn or another source of noise;
- The Contractor shall remove from construction site domestic wastes daily in order not to attract animals;

- The Contractor shall comply with other requirements established in the Biodiversity Survey Report developed by the Consultant.

### 9.2.2.7 Waste generation, including hazardous products and wastes

In order to minimize and reduce impacts on environment and workforce health and safety during the reconstruction process the following mitigation measures shall be implemented:

- Hazardous wastes represented by diesel, engine oil, hydraulic fluids, paints and solvents shall be managed adequate by the General Contractor in order to prevent pollution of the environment and protect the workforce health and safety.
- Only limited quantities of hazardous products shall be stored on site at the same time, based on the needs for few days works;
- Hazardous waste including used engine oil, hydraulic liquids, oil filters, used paint containers, solvent containers, car batteries, used anti-pollution kits, first aid waste, contaminated soil, disused electronic equipment, sludge from septic tanks, oily water etc. shall be separated from other waste and stored under special conditions in dedicated areas to contain any leakages;
- Refuelling of machinery on worksite shall be performed using portable retention equipment to minimize accidental spill and soil contamination;
- Maintenance including washing, engine oil change and repairs of machines shall be done only in garage facilities;
- Hazardous waste shall be removed and transported from site for further treatment and disposal/recycling only by an authorised company.

On-site hazardous product and waste storage shall comply with the following specifications:

- The products shall be stored in a closed building (or container) with a concrete platform on the ground surrounded on all four sides by an impervious retention that is high enough to retain any spill or leakage from any of the containers stored. This volume is defined as a minimum of 110% of the volume of the largest container stored on the site taking into consideration the volume occupied by the stored containers; the storage facility is closed by a lock and located at a safety distance of at least 20 meters from any residential or occupied building.
- Access to the storage area is restricted to trained and authorized staff, equipped with appropriate personal protective equipment (PPE);
- A register takes traces of any in/out movement of hazardous substances;
- Storage areas are clearly identified with warning signs at the entrance. The General Contractor shall display the storage plan (location of the different products, maximum capacity), a summary of labelling system and information on chemical incompatibilities;
- Suitable absorbents (neutralizing and non-combustible) shall be available in the storage area to clean up in case of spills or leaks;
- Extinguishers in sufficient number shall be available on each storage site;
- On construction sites, the Contractor may temporary store any hazardous product in small quantities and for short duration, but all products shall be located in a mobile storage ensuring full retention of spill/leakage from the largest container, which shall not exceed 100 l if worksite is located in dense urbanized area.

- Hazardous waste produced on construction site shall not be stored on site more than 3 days before delivery to the main HazMat storage.

The Hazardous Waste Register shall be established and maintained by the Contract and shall be accessible for the Supervision Consultant. The register shall record all hazardous waste including operations: production, collection, transport, treatment. The following aspects are documented in this register: (i) Type of waste, (ii) Waste quantity production, (iii) Date, type and quantity of waste removed from site, (iv) Name and address of the Contractor in charge of waste transport and (v) Name and address of the Contractor in charge of waste treatment and disposal (if different from transport Contractor).

### 9.2.2.8 Occupational and health and safety

In order to minimize and reduce OHS risks the following mitigation measures shall be implemented:

- The contractor shall develop a Labour Management Plan for promoting safety and health at work, the fair treatment, non-discrimination and equal opportunity of all workers, for protecting all workers (including vulnerable workers such as women, persons with disabilities, children and migrant workers, contracted workers, community workers and primary supply workers, as appropriate), for preventing the use of all forms of forced labour and child labour, for supporting the principles of freedom of association and collective bargaining of project workers in a manner consistent with applicable laws of the Republic of Moldova and for providing project workers with accessible means to raise workplace concerns;
- The contractor shall develop its own OHS Plan specific for construction process by taking into consideration the Project's specific Labour Management Plan for reconstruction process of the road and seek approval from the Supervision Consultant;
- Develop and implement a communication procedure for reporting to the Supervision Consultant all aspects regarding LMP implementation on site;
- Report all incidents and accident immediately to the Supervision Consultant.
- Ensure implementation and compliance with the present plan;
- Keep Emergency Preparedness and Response Plan updated and relevant for construction phase;
- Routines for traffic and transportation linked to operation and maintenance of the equipment is in place. Special attention should be given to safety when passing settlements, schools and close to habited places.
- Routines to follow-up and to ensure that all direct workers and subcontracted are aware and comply with existing safety regulations and action plans.
- Ensure that access to the construction site is restricted and that safety measures to avoid unauthorized people enter into the site;
- Information material on fence/gate displaying warning signs and instructions on what to do in case of emergency situation, accidents and evacuation routes.

### 9.2.2.9 Community Health and Safety, including traffic safety

In order to minimize and reduce impacts on community health and safety during the reconstruction process, the following mitigation measures shall be implemented:

- Ensure implementation and compliance with the requirements of the present plan;
- Preparation of Emergency Preparedness and Response Plan for construction site;
- Preparation of code of conduct to be adhered to by personnel and subcontractors involved in construction process;
- Preparation of Traffic Management Plan with defined routines for traffic and transportation to construction sites, especially considering safety issues linked to passing near the village and communes from the Hincesti and Nisporeni Districts, avoiding schools and close to habited places;
- Preparation of Training Plan to ensure that contractor's and subcontractor's workers are aware and comply with existing safety regulations and action plans;
- Ensure that a complaint mechanism is present on site in order to communicate with community is safety during the project's implementation and the construction activities are not affected by the construction works.
- Ensure that any roads (diverted roads) or other infrastructure used during construction phase is not left in worse condition after construction phase;
- Develop a communication procedure based on SEP and communicate with local stakeholders regarding terms of the project implementation;
- Install in the construction site an informational panel with all the project's information and channel of communication with Contractor, Supervision Consultant and Employer;
- At the starting of the construction activity, all local specific stakeholder shall be invited in order to inform with working plan and specific tasks for project implementation,
- All technical documents shall be present in the construction site and shall be present at the requires of stakeholders;
- Any incidents/accidents shall be reported to the Supervision Consultant and the Employer immediately with a Notification Report;
- Incident/accident shall be investigated by the Contractor and investigation results shall be submitted to the Supervision Consultant and the Employer.

In order to minimize and reduce impacts on traffic safety during the construction process, the following mitigation measures shall be implemented:

- To provide procedures and plans for controlling site access, including construction area: security controls, use of badges, access registers etc.;
- To provide for construction site the principles and measures to be applied for securing traffic (cars and pedestrians) around the concerned site;
- To include detailed plans for signage around the worksites to facilitate traffic movement, to provide directions to various components of the works, to provide safety advice and warnings;
- All traffic signs shall be in English, Romanian and other language and shall be constructed in compliance with Moldova applicable standards and receive approval from the traffic police;
- To identify measures to prevent public road or street damage by construction related traffic, particularly by heavy loads;

- Wheel washing facility shall be provided for trucks leaving site or facilities located adjacent to paved public road;
- The Contractor shall ensure that drivers and workers are licenced, know and understand the routes and traffic rules on site;
- The speed limit on construction site is 5 km/h, in the Hincesti and Nisporeni Districts is 50 km and on national road 90 km, transportation of good and materials is 70 km on national roads.
- Vehicles shall be kept in good mechanical condition, with particular attention being given to brakes, signals, lights, horns, windshield wipers, steering gear and tires. Additionally, all vehicles must have the first aid kit and fire extinguisher and other instruments;
- If a driver detects a mechanical defect or safety hazard in an assigned vehicle, that Contractor shall arrange to have repairs made at once. If the vehicle is shared with other drivers as part of a vehicle pool, the Contractor shall report the condition immediately to the person in charge of vehicle pool equipment. Operators of regulated vehicles shall follow the required pre-trip/post-trip inspection.

### 9.2.2.10 The Cultural Heritage Protection

In order to minimize and reduce impacts on cultural heritage the following mitigation measures shall be implemented during the construction stage. Several good construction practices shall be applied in order to mitigate cultural heritage aspects, such as:

- The Contractor shall develop a Chance Finds Plan to ensure that workers and subcontractors have proper routines to identify and take action whenever unknown/new archaeological artefacts or sites are found during construction work;
- The Contractor shall develop a Chance Find Plan and ensure that workers and subcontractors have proper communication channel to report to contractor's staff, Engineer, Employer and stop construction activity on site in order to safeguard already identified archaeological artefacts and sites.
- The Contractor shall ensure that a Training Plan is developed and Chance Find Plan is relevant for employees and subcontractors in above mentioned protocols.

If cultural resources (e.g. archaeological sites, historical sites, remains, objects, graveyards or individual graves, etc.) are discovered when undertaking construction activities, civil works, the following procedure will be executed, but not limited to:

1. Halt the construction activities around the chance find to avoid any (or further) damage;
2. Report the discovery to the Contractor Manager, the Engineer and Employer immediately;
3. Delineate and fence the discovered site or area and provide a 25 meters buffer zone around all sides of the find;
4. Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard will be arranged until the responsible from the Ministry of Culture and National Archaeological Agency, can take over;
5. Forbid any removal of the objects by the workers or other parties;
6. Note the type of archaeological materials you think you have encountered, their location (GPS) and if possible, the depth below the surface the find occurred;
7. Photograph the exposed materials, preferably with a scale (e.g. a file binder, coin, rules etc.);

8. Notify the responsible local authorities (Hincesti and Nisporeni Districts), Ministry[78] of Culture and National Archaeological Agency[79] immediately (within 24 hours or less);
9. Responsible local authorities would oversee protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the Ministry of Culture and National Archaeological Agency. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; these include the aesthetic, historic, scientific or research, social, and economic values;
10. Decisions on how to handle the finding shall be taken by the responsible authorities. This could include changes in the physical investment layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration, and/or salvage;
11. Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities;
12. The mitigation measures could include the change of proposed Project design/ layout, protection, conservation, restoration, and/or preservation of the sites and/or objects;
13. Construction work at the site could resume only after permission is given from the responsible local authorities concerning safeguard of the heritage; and
14. The physical investment proponent is responsible for cooperating with Ministry of Culture and National Archaeological Agency to monitor all construction activities and ensure that the adequate preservation actions are taken and hence the heritage sites protected.
In addition, MERA & PIU is obliged to declare the chance find discovery at the earliest possible date to the EBRD.

### 9.2.2.11 Stakeholders participation

In order to minimize and reduce impacts on stakeholders the following mitigation measures shall be implemented:

- Ensure implementation and compliance with the present Plan and SEP;
- Preparation and implementation of the Emergency Preparedness and Response Plan for construction site;
- Preparation of Code of Conduct to be adhered to by direct and subcontracted workers involved in construction work on site;
- Preparation of Traffic Management Plan with defined routines for traffic and transportation to construction sites, especially considering safety issues linked to passing settlements, avoiding schools and close to habited places;
- Preparation of Training Plan to ensure that contractor's and subcontractor's workers are aware and comply with existing safety regulations and plans;
- Preparation of Community HSP to ensure that community is safety during the project's implementation and sources of water, soil, air is not polluted by the construction works
- Establish a complaint mechanism to be used by the affected community during the construction works in order to have a communication channel and be able to respond to complaints and other identified non-conformities on site;

[78] Source: https://www.mc.gov.md/
[79] Source: https://ana.md/

- Involve the community in the monitoring process by creating Social Impact Monitoring Committees at the Local Public Authority level in order to create an open, transparent, trusted and constructive relationship with communities and local business;
- Install a Site Informational Panel with specific Project's data and communication channel and complaint mechanism.

## 9.3 Operational Phase

### 9.3.1 General

The Employer (Beneficiary NRA) shall appoint Environmental and Social (ESHS) Specialists for establishing, maintaining and continually improve the Environmental and Social Management System (ESMS), whose duties throughout the operational period shall be primarily connected with compliance with applicable to environmental and social laws of the Republic of Moldova and EBRD's environmental and social requirements.

### 9.3.2 Mitigation of Environmental and Social Impacts

#### 9.3.2.1 Environmental protection

The mitigation measures proposed to minimize and reduce impacts on air, water, soil quality, flora and fauna etc. for operation and maintenance of the new equipment are the following:

- Regular inspection of new facility as part of maintenance program shall be performed;
- Emergency response planning is required for natural hazards and extreme events (floods, storms, landslides, seismic events, etc.),
- To monitor the soil erosion, landslides, rain water evacuation and in case of emergency, report to the State Authority;
- Other mitigation measures identified at the risk assessment process within ESMS.

#### 9.3.2.2 Labour & occupational health and safety

The mitigation measures proposed to minimize and reduce impacts on community and workforce during operation and maintenance of the constructed facility are the following:

- Ensure compliance with applicable OHS laws;
- Keep Emergency Response Plan updated and relevant for operation and maintenance;
- Routines for traffic and transportation linked to operation and maintenance of the constructed facility is in place. Special attention should be given to safety when passing settlements, schools and close to habited places from the Hincesti and Nisporeni Districts (if applicable).
- Routines to follow-up and to ensure that all workers and contractors are aware and comply with existing safety regulations and action plans.
- Information material on walls displaying warning signs and instructions on what to do in case of accidents and emergency.

Environmental and Social Management Plans (ESMPs) have been prepared specific for construction and operational stages as part of the present document in order to define the implementation mechanism for the above-described mitigation measures and preventive actions.

### 9.3.2.3 Community protection and traffic management

In order to minimize and reduce impacts on traffic safety during the operational phase, the following mitigation measures shall be implemented:

- To provide procedures and plans for controlling site access: security controls, use of badges, access registers etc.;
- To provide the principles and measures to be applied for securing traffic (cars and pedestrians) around the concerned site;
- All traffic signs shall be constructed in compliance with Moldova applicable standards and receive approval from the traffic police;
- To identify measures to prevent public road or street damage by construction related traffic, particularly by heavy loads;
- The Beneficiary shall ensure that drivers and workers are licenced, know and understand the routes and traffic rules on site;
- The speed limit on construction site is 5 km/h, in the locality is 50 km and on national road 90 km, transportation of good and materials is 70 km on national roads.
- Vehicles shall be kept in good mechanical condition, with particular attention being given to brakes, signals, lights, horns, windshield wipers, steering gear and tires. Additionally, all vehicles must have the first aid kit and fire extinguisher and other instruments;
- If a driver detects a mechanical defect or safety hazard in an assigned vehicle, that Contractor shall arrange to have repairs made at once. If the vehicle is shared with other drivers as part of a vehicle pool, the Employer shall report the condition immediately to the person in charge of vehicle pool equipment. Operators of regulated vehicles shall follow the required pre-trip/post-trip inspection.

### 9.3.2.4 Stakeholders participation

In order to minimize and reduce impacts on stakeholders the following mitigation measures shall be implemented:

- Ensure compliance with the applicable laws of the Republic of Moldova;
- Ensure that company's personnel are competent and is trained,
- Ensure that equipment maintained in compliance with the manufactures' technical book,
- Ensure that monitoring and measurements data are reported to stakeholders and other interested parties,
- Ensure that emergency situation is controlled by the Employer;
- Ensure that the Beneficiary ESMS is established and maintained.

In the table 9-1 is presented mitigation measures for Construction and Operational Stages.

## Table 9-1: Mitigation measures presented in the ESMP for Construction and Operational Phase

| Type of Impact & Potential Negative Impact | Environmental & Social mitigation measures | Location | Responsible | Supervising agency | Budget | Timing |
|---|---|---|---|---|---|---|
| **CONSTRUCTION STAGE** | | | | | | |
| Labour and working condition | The Contractor shall develop a Contractor's Labour Management Plan taking into consideration mitigation measures from the chapter 9.2.2.1 | Lot no.2 | Contractor | | | |
| Air protection | The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 9.2.2.2 | Lot no.2 | Contractor | 1 Supervision Consultant<br>2 Employer<br>3 Hincesti/Nisporeni District Council<br>4 Environmental Agency<br>5 IPM Hincesti and Nisporeni<br>6 NAPH & CSP Hincesti/Ungheni<br>7 National Inspectorate for Technical Supervision (NITS) | Contractor's Budget | Contractor's work plan |
| Noise protection | The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 9.2.2.3 | Lot no.2 | Contractor | | | |
| Water protection | The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 9.2.2.4 | Lot no.2 | Contractor | | | |
| Soil protection | The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 9.2.2.5 | Lot no.2 | Contractor | | | |
| Flora and fauna protection | The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 9.2.2.6 | Lot no.2 | Contractor | | | |
| Waste generation, incl. hazardous products & wastes | The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 9.2.2.7 | Lot no.2 | Contractor | | | |
| OHS | The Contractor shall develop a Contractor's Labour Management Plan taking into consideration mitigation measures from the chapter 9.2.2.8 | Lot no.2 | Contractor | | | |
| Community OHS, including traffic management | The Contractor shall develop a Contractor's Labour Management Plan taking into consideration mitigation measures from the chapter 9.2.2.9 | Lot no.2 | Contractor | | | |
| Cultural heritage protection | The Contractor shall develop a Contractor's ESMP taking into consideration mitigation measures presented in the chapter 9.2.2.10 | Lot no.2 | Contractor | | | |
| Stakeholders participation | The Contractor shall implement Contractor's ESMP taking into consideration mitigation measures presented in the chapter 9.2.2.11 | Lot no.2 | Contractor | | | |
| **OPERATIONAL PHASE** | | | | | | |
| Labour and working conditions | 1. The ESMS establishes, implements and maintains by the Beneficiary. | Lot no.2 | NRA | NRA<br>NATS | NRA's Budget | ESMS O&M Plan |

| | | | | | | |
|---|---|---|---|---|---|---|
| Resources efficiency and pollution prevention<br>OHS<br>Emergency preparedness and response<br>Stakeholders participation | 2. Operational Criterion shall be identified by the Beneficiary to be in compliance with applicable RM legal requirements and IFI<br>3. Reporting ES performances to the Environmental Agency other stakeholders | | | NAPH<br>Env. Agency | | |

# 10 CAPACITY BUILDING

## 10.1 General

The European Bank for Reconstruction and Development[80] is committed to promoting environmentally sound and sustainable development in the full range of its activities pursuant to the Agreement Establishing the EBRD. The Bank recognises that environmental and social sustainability is a fundamental aspect of achieving outcomes consistent with its transition mandate. Capacity-building is defined as the process through which individuals and organisations can obtain, strengthen and maintain the capabilities to set and achieve their goals. It is an essential aspect for local governments as they adopt increasingly sophisticated policies, management practices and an integrated planning culture.

The broad types of capability are as follows:
(i) institutional or organisational capacity (the policies, structures, process, rules and procedures that allow local governments to operate and provide leadership in their jurisdiction);
(ii) human capacity, which refers to (the experience, tools and knowledge mastered by the employees of local governments which enable them to identify, analyse and respond to people's needs, ensure their implementation and assess their impact); and
(iii) societal capacity (the empowerment of the community, NGOs and city residents, including those that face disproportionate barriers to economic opportunities).
It is important to recognise these types of capability in order to not only hold local governments and administrations accountable for the services they offer, but also to participate more effectively in community management and the labour market.

The capacity-building process involving human resources during the construction stage aims to promote targeted capacity building within central and local public authorities, providing the skills required for the maintenance of new infrastructure and equipment, and continual improvement.

## 10.2 Capacity building specific for the construction phase

In order to successfully implement the Project's ESMP for the reconstruction of the M1 express national road (Lot No. 2), it is essential that the General Contractor and subcontractor personnel involved in the reconstruction process possess the necessary knowledge and expertise. The contractor is responsible for ensuring that all workers receive comprehensive safety and health training, including specific information and instructions relevant to their respective workstations or roles:
(i) on recruitment,
(ii) in the event of a transfer or a change of job,
(iii) in the event of the introduction of new work equipment or a change in equipment, and
(iv) in the event of the introduction of any new technology.

[80] Source: https://www.ebrd.com/home/news-and-events/publications/institutional-documents/environmental-and-social-policy-2024.html

The training shall be adapted to take account of new or changed risks, and repeated periodically if necessary.

The reconstruction of the express road M1 will support relevant training on knowledge and information on topics such as the implementation of the Project's specific ESMP for the reconstruction process, ES performances reporting, etc. Please refer to Table 10-1 below for details of the capacity-building and training plan for the construction stage.

Table 10-1: Capacity building and training program for Construction Phase

| # | Training subject | Time and duration | Recipients | Organizer | Cost |
|---|---|---|---|---|---|
| **A** | **ENVIROMENTAL AND SOCIAL** | | | | |
| 1 | Induction training for the provision of the Project's specific ESMP | Before starting the construction works | Contractor/ Subcontractor | Contractor | Contractor cost |
| 2 | Induction training for the provision of the Project's specific LMP (Child labour, non-discrimination and equal opportunity, TiP, SH, HIV/AIDS and STD, etc.) | Before starting the construction works | Contractor/ Subcontractor | Contractor | Contractor cost |
| 3 | Induction training for the provision of the Project's Code of Conduct | Before starting the construction works | Contractor/ Subcontractor | Contractor | Contractor cost |
| 4 | Induction for visitors, supply chain, community, etc. | Before starting the construction works | Contractor/ Subcontractor | Contractor | Contractor cost |
| 5 | Waste management requirements | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 6 | Traffic Management Plan | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 7 | Community HS Plan | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 8 | Emergency Preparedness and Response Plan | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 9 | First Aid and Evacuation Plan | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 10 | Accommodation and Hygiene (Site Organisation) | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 11 | Flora and fauna protection | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 12 | Behaviour on site | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| **B** | **OCCUPATIONAL HEALTH AND SAFETY** | | | | |

| # | Training subject | Time and duration | Recipients | Organizer | Cost |
|---|---|---|---|---|---|
| 13 | The Project's LMP specific for reconstruction site Lot no.1 | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 14 | Confined space | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 15 | Working at heights on site | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 16 | Electrical requirements on site | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 17 | Wear of PPE on site | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 18 | Noise and vibration on site | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 19 | Crane and forklift requirement on site | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 20 | Requirements for smoking and drinking on site | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 21 | Hygiene aspects | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |
| 22 | Site Organization, and Asphalt and Concrete Plants | Before starting construction works and periodically | Contractor/ Subcontractor | Contractor | Contractor cost |

It is the General Contractor's responsibility to ensure that subcontractor workers engaged in work have received appropriate instructions regarding ES and OHS risks during their activities in the undertaking and/or establishment. Workers' representatives with a specific role in protecting the safety and health of workers shall be entitled to appropriate training. This training must take place during working hours or in accordance with national practice, either within or outside the undertaking and/or the establishment.

The General Contractor will be responsible for developing and implementing a Training and Economic Inclusion Plan on the construction site. This plan will prepare new young people to work on the road during the operational stage, when they will be employed by the Employer for maintenance and repair work.

## 10.3 Capacity building for operational phase

To achieve the EBRD's goals of promoting environmentally sound and sustainable development, the Employer is required to establish and implement a capacity-building plan, as outlined in Table 10-2.

The implementation of the Project's specific ESMP for reconstruction process requires specific knowledge and expertise for the Employer personnel to operate and maintain the new constructed facility and new purchased equipment.

The Employer shall ensure that the workforce receives adequate OHS training, in accordance with the Republic of Moldova and EBRD specifications for the new facility. This training shall be provided:

- upon recruitment;
- in the event of a transfer or a change of job;
- in the event of the introduction of new work equipment or a change in equipment; and
- in the event of the introduction of any new technology.

Table 10-2: Capacity building and training program for Operational Phase

| # | Training subject | Time & duration | Recipients | Organizer | Cost |
|---|---|---|---|---|---|
| 1 | Operation & maintenance of the equipment (EMS) | 2026-27 | Beneficiary | Beneficiary | Beneficiary |
| 2 | Compliance with applicable laws | 2026-27 | Beneficiary | Beneficiary | Beneficiary |
| 3 | ES&OHS Risk Assessment Procedure | 2026-27 | Beneficiary | Beneficiary | Beneficiary |
| 4 | Certification of the monitoring and measurement equipment (technical and metrological) | 2026-27 | Beneficiary | Beneficiary | Beneficiary |
| 5 | Emergency situation | 2026-27 | Beneficiary | Beneficiary | Beneficiary |
| 6 | Environmental and Social Management System | 2026-27 | Beneficiary | Beneficiary | Beneficiary |
| 7 | Capacity building | 2026-27 | Beneficiary | Beneficiary | Beneficiary |

# 11 PERFORMANCE EVALUATION

## 11.1 Monitoring, measurement, analysis and performance evaluation

### 11.1.1 General

It is essential to conduct environmental and social monitoring and measurement in order to evaluate the effectiveness of the mitigation measures implemented during the reconstruction process. The primary objective of this approach is to ensure that the project operates within the established environmental and social parameters, while adhering to all relevant legislative and regulatory requirements.

The following monitoring and measurement programme cover the environmental, social and occupational health and safety conditions of the new rehabilitated facility. It will provide sufficient information to identify conditions which require corrective action or for which additional impact analysis and mitigation measures may be required. The programme is based on the environmental and social impacts that were predicted and the mitigation measures that were identified.

The costs estimates include cost estimates for the purchase of monitoring equipment or services and other monitoring operational costs.

An ESMP is a living document that is periodically revised to reflect the current understanding of site conditions, with the continued growth of the knowledge base throughout the life of the project. Monitoring programs must also be revised and updated to generate the most relevant data and information to characterize evolving environmental and social as well as environmental and social program performance.

The implementation of these plans and programmes will provide the necessary data and information to identify, anticipate and further mitigate the changing environmental and social conditions in the new rehabilitated facility over time. The monitoring programme plays an important role in achieving sustainability and transparency.

Each of the monitoring programs shall be the responsibility of key management personnel defined in the Monitoring Plan table. They will have the authority to adjust and modify operating conditions should the monitoring outcomes identify that such corrective actions are warranted.

### 11.1.2 Emergency preparedness and control

The established mitigation measures outlined in this document are intended for use in standard construction site conditions. In the event of an emergency or abnormal situation, however, the contractor is required to be prepared and respond accordingly:

- Prepare to respond to emergency situations to prevent or mitigate adverse environmental impacts from emergency situations;
- Respond to actual emergency situations;

- Take action to prevent or mitigate the consequences of emergency situations, appropriate to the magnitude of the emergency and the potential environmental impact;
- Periodically test the planned response actions, where practicable;
- Periodically review and revise the Emergency Preparedness and Response Plan and planned response actions, in particular after the occurrence of emergency situations or tests;
- Provide relevant information and training related to emergency preparedness and response, as appropriate, to relevant stakeholders and other interested parties, including contracted workers, supply chain workers and visitors.

The Contractor shall maintain documented information to the extent necessary to have confidence that the rehabilitation is carried out as planned.

### 11.1.3 Monitoring and measurement during Construction Phase

The following activities will be continuously monitored during construction phase:

- Implementation of approved Detailed Design for reconstruction process of the Lot no.2;
- Implementation of the Project's specific ESMP for reconstruction process of the Lot no.2;
- Implementation of the Project's specific LMP for reconstruction process of the Lot no.2;
- Implementation of the Project's specific Code of Conduct for reconstruction process of the Lot no.2;
- Implementation of the Project's specific Consultation and Participation Plan for reconstruction process of the Lot no.2;
- Implementation of the Project's specific Complaint Mechanism for reconstruction process of the Lot no.2;
- Implementation of the Stakeholders Engagement and Plan (SEP).

### 11.1.4 Monitoring and measurement during Operation Phase

The operation of the new rehabilitated facility shall be regularly monitored during the operational phase to ensure adherence to the requirements and procedures stipulated in the applicable Laws of the Republic of Moldova and EBRD and EU Directives.

As previously stated, the measures are standard and will cover the following: the operation and maintenance of the new facility, personnel competence, emergency situations, compliance with applicable ES laws and requirements, and OHS, etc.

In this context, during the operational phase the key institutions to which the Employer will enter into juridical relation with are:

- Hincesti and Nisporeni District Councils;
- Ministry of Infrastructure and Regional Development;
- Environmental Agency/Environmental Protection Inspectorate (regular inspections of compliance with the environmental standards);
- National Agency for Public Health (regular medical control for workers);
- Labour Inspection (compliance with the OHS standards);

- National Inspectorate for Technical Supervision.

**Table 11-1: Monitoring and Measurement Plan for Construction Stage**

| WHAT parameter is to be monitored | WHERE is the para-meter to be monitored | HOW is the parameter to be monitored | WHEN is the parameter to be monitored | WHO is to monitor the parameter | Cost | WHOM to report to |
|---|---|---|---|---|---|---|
| **HEALTH, SAFETY AND ENVIRONMENT (DOCUMENTS AND RECORDS)** | | | | | | |
| Construction Authorization | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer HDC, EA | Employer | Engineer (MPR) to Employer |
| Approved Project's Detailed Design & ESMP, LMP, CoC | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer HDC, EA | Contractor | Engineer (MPR) to Employer |
| Contractor's Risk Register | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Approved CESMP | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Approved COHSP | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Approved CoC | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Communication procedure (GM for workforce) | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| ES Training Plan (direct & indirect workers) | Construction Site | Signing the minutes of training on CS | Before Work on site | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Emergency Preparedness and Response Plan | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Community HSP | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer HDC | Contractor | Engineer (MPR) to Employer |
| Traffic Management Plan | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer HDC | Contractor | Engineer (MPR) to Employer |
| Information Board on Site | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer HDC | Contractor | Engineer (MPR) to Employer |
| Daily Log | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| List of workers on site | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Visitors Log | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Accident Log & reporting procedure | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer HDC | Contractor | Engineer (MPR) to Employer |
| Emergency & First Aids kits on site | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Environmental collection kits (spills & leaks) | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer EPI | Contractor | Engineer (MPR) to Employer |
| General working condition on site (camp site, sanitation, | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer NAPH | Contractor | Engineer (MPR) to Employer |

| WHAT parameter is to be monitored | WHERE is the para-meter to be monitored | HOW is the parameter to be monitored | WHEN is the parameter to be monitored | WHO is to monitor the parameter | Cost | WHOM to report to |
|---|---|---|---|---|---|---|
| accommodation, resting rooms, washrooms, toilets, canteen, etc.) | | | | | | |
| Site Organisation | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer HDC, NAPH | Contractor | Engineer (MPR) to Employer |
| Asphalt/concrete plants | Construction Site (CS) | To be present on construction site | Before starting construction works | Engineer Employer HDC, NAPH | Contractor | Engineer (MPR) to Employer |
| **ENVIRONMENTAL PERFORMANCES** | | | | | | |
| Noise level | Construction Site | Measurement of dB level | During the work of heavy machinery | Engineer Employer NAPH | Contractor | Engineer (MPR) to Employer |
| Air quality | Construction Site | Measurement of air quality | Before and during the construction activity | Engineer Employer NAPH | Contractor | Engineer (MPR) to Employer |
| Dust | Construction Site | Measurement of quantity of water used for dust suppressed | During the work of heavy machinery | Engineer Employer NAPH, EPI | Contractor | Engineer (MPR) to Employer |
| Waste Management | Construction Site | Check of permits for dumping the waste at the local authorized damp site& wastes records traceability | Before work starts and during the work when deemed necessary. | Engineer Employer EA/EPI | Contractor | Engineer (MPR) to Employer |
| Hazardous materials and waste management | Construction Site | Presence of PPE (respirators, gloves, glasses, coverall, special containers, etc.)) | Periodically (ones in a month) | Engineer Employer EA/EPI, NAPH | Contractor | Engineer (MPR) to Employer |
| Consumption of resources | Construction Site | Measure the consumption | Monthly | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Borrow pit | Construction Site | Measure the consumption | Monthly | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| **SOCIAL PARAMETERS** | | | | | | |
| Complaint mechanism for workforce | Construction Site | Boxes to be installed on construction site | Ensure that box is installed and safety condition | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Number of meetings, seminar, booklets, etc on social mitigating risks (CoC, TiP, SH, HIV & STD) conducted with workers | Construction Site | Training reports | Monthly | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Numbers of complaints received from construction site personnel | Construction Site | Complaints | Monthly | Engineer Employer | Contractor | Engineer (MPR) to Employer |

| WHAT parameter is to be monitored | WHERE is the para-meter to be monitored | HOW is the parameter to be monitored | WHEN is the parameter to be monitored | WHO is to monitor the parameter | Cost | WHOM to report to |
|---|---|---|---|---|---|---|
| Medical control of personnel | Construction Site | Surveillance medical report, Invoice | Once a year | Engineer Employer NAPH/EA/EPI | Contractor | Engineer (MPR) to Employer |
| **OCCUPATIONAL HEALTH AND SAFETY** | | | | | | |
| PPE | Construction Site | Workers must wear PPE | Every day | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Electrical special PPE | Construction Site | Workers must wear PPE | Every day | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Crane and forklift | Construction Site | O&M for crane and forklift | Before starting construction work | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Weather condition | Construction Site | PPE for cold period & water for hot season | Depends of weather conditions | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Work Permits | Construction Site | Obtain WP from Engineer | Before starting construction work | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| OHS Signs | Construction Site | Install OHS signs on site | Before starting construction work | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Smoking area | Construction Site | Install a smoking place | Before starting construction work | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Cleanness and hygiene | Construction Site | Site Inspection | Before starting construction work and regularly | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Traffic on road | Construction Site | Site Inspection | Before starting construction work and regularly | Engineer Employer | Contractor | Engineer (MPR) to Employer |
| Community HS (bypass road) | Construction Site | Site Inspection | Before starting construction work and regularly | Engineer Employer | Contractor | Engineer (MPR) to Employer |

**Table 11-2: Monitoring and Measurement Plan for Operational Stage**

| WHAT parameter is to be monitored | WHERE is the para-meter to be monitored | HOW is the parameter to be monitored | WHEN is the parameter to be monitored | WHO is to monitor the parameter | Cost | WHOM to report to |
|---|---|---|---|---|---|---|
| **ENVIRONMENTAL** | | | | | | |
| Compliance with ES laws | Employer | Compliance with ES applicable laws & IFIs. | Monthly / Yearly | Employer's designated and technical staff | Employer | EA, EPI |
| Competence | Employer | Compliance with ES applicable laws & IFIs | Monthly / Yearly | Employer's designated and technical staff | Employer | MoIRD |
| Monitoring and measurement of equipment | Employer | Compliance with ES applicable laws | Monthly / Yearly | Employer's technical staff | Employer | Moldova Standard |
| Monitoring and measurement of working environ. | Employer | Compliance with ES applicable laws | Monthly / Yearly | Employer's technical staff | Employer | EA/EPI, NAPH |
| Monitoring and measurement of | Employer | Compliance with ES applicable laws | Monthly / Yearly | Employer's technical staff | Employer | EA, EPI |

| | | | | | | |
|---|---|---|---|---|---|---|
| pollutant release into the atmosphere | | | | | | |
| Equipment maintenance | Employer | Compliance with ES applicable laws | Monthly / Yearly | Employer's technical staff | Employer | MoIRD |
| Emergency situations | Employer | Compliance with ES applicable laws | Monthly / Yearly | Employer's technical staff | Employer | Firefighting department |
| Equipment safety | Employer | Compliance with ES applicable laws | Monthly / Yearly | Employer's technical staff | Employer | National Agency for Technical Supervision |
| **SOCIAL** | | | | | | |
| Compliance with ES requirements | Employer | Compliance with ES applicable laws | Yearly | Employer's technical staff | Employer | EA/EPI NAPH, SLI |
| Human Resources Policy | Employer | Compliance with HR applicable laws | Monthly / Yearly | Employer's HR staff | Employer | EA/EPI NAPH, SLI |
| CoC | Employer | Compliance with ES applicable laws | Monthly / Yearly | Employer's HR staff | Employer | EA/EPI NAPH, SLI |
| Health & Safety Plan | Employer | Compliance with HS applicable laws | Monthly / Yearly | Employer's HS staff | Employer | EA/EPI NAPH, SLI |
| Medical surveillance /control of personnel | Employer | Compliance with social applicable laws | Monthly / Yearly | Employer's staff | Employer | NAPH, SLI |

### 11.1.5 Monitoring the compliance with ES requirements

#### 11.1.5.1 Compliance with requirements of IFIs

At the detailed design stage, an Environmental and Social Impact Assessment (ESIA) proportionate to the potential risks and impacts of the reconstruction process of the express road M1 (Lot no.2) and commensurate with its nature, size and location shall be carried out according to the EBRD's PR no.1 Assessment and Management of Environmental and Social Risks and Impacts and applicable laws of the Republic of Moldova and identified high risks shall be part of ESMP.

Furthermore, at the detailed design stage, the Stakeholder Engagement Plan (SEP) will be revised to map specific engagement and participation during project implementation and external reporting.

### 11.1.6 Compliance with applicable RM requirements

#### 11.1.6.1 Construction Permit issuance

The construction permit/authorization is issued by the Hincesti and Nisporeni District Councils based on the Employer application, which indicates the location of the construction site, within 30 working days from the date of its registration.

The following documents will be attached to the request:
- The Urbanism Certificate for Design issued by the Hincesti and Nisporeni District Councils;
- Approved Detailed Design with the report on the project verification;
- Contract on the author's supervision, signed by the applicant and the Contractor;

- The Project's specific ESMP for reconstruction process of the express road m1 Lot no.2;
- The Project's specific Labour Management Procedure for reconstruction process;
- The Project's Code of Conduct;
- The Project's specific Consultation and Participation procedure
- The Project's Complaint Mechanism
- The Project's revised Stakeholder Engagement Plan;
- Notice from the National Council of Historical Monuments attached to the Ministry of Education on the approval of the execution design, in case of designing interventions at history, art or architecture monuments or in-built areas registered in the Monuments Register of the Republic of Moldova, protected by the state;
- The archaeological discharge certificate issued by the National Archaeological Agency;
- The Environmental Permit no. 24 of August 12th 2025 issued by the Environmental Agency for Moldova Road Project V.

### 11.1.6.2 Non-Compliance with requirements of the present Plan

The Contractor shall ensure that requirements established in the present document are implemented on the construction site with defined roles, responsibilities and authorities. The Contractor shall also ensure an internal communication process (direct and subcontracted workers, etc.), an external process and a process in case of emergency events.

In the event of identified non-conformities on the construction site, the Contractor shall ensure that all personnel employed to carry out work are competent and fit to carry out the work they are employed to do, in accordance with the General Conditions of the Contract (GCC). All Contractor personnel shall receive a site safety induction before they commence work, which should identify any hazards and the risks to their health and safety, as well as the control measures that shall be implemented. Any worker who fails to cooperate with the Contractor or fails to take reasonable care of themselves or others, thereby placing them at risk of injury or ill health, **shall be removed from the site.**

**Additionally, according to the EBRD Environmental and Social Policy 2019[81], art.14"** During the course of any work activity, the client will ensure that all project workers have appropriate physical fitness to undertake their appointed job roles and are provided with: (i) **continued and appropriate level of supervision to ensure they do not place themselves or others at risk; (ii) safe work equipment; and (iii) OSH procedures, work instructions, information, appropriate training and workplace rules that are implemented and enforced.**

Where project workers place themselves or others at risk, the client will take propionate disciplinary action to enforce workplace rules and, where necessary, ensure that **they are immediately removed from the workplace until they are no longer a risk to themselves or others. The client will not impose financial penalties on workers for health and safety infringements.**

[81] Source: https://www.ebrd.com/home/news-and-events/publications/institutional-documents/environmental-and-social-policy-2019.html

According to the Contravention Code[82] of the Republic of Moldova, the following fines shall be paid by the Contractor in case of non-compliance:

Table 11-3: Non-compliance with applicable requirements of the Republic of Moldova

| No. | Articles | Contents | Fines, leis |
|---|---|---|---|
| 1 | 55 | Violation of labour legislation | 7500 - 12000 |
| 2 | $55^3$ | Violation of the legislation on safety and health at work | 12500 - 20000 |
| 3 | 69 | Insult | 2500 - 3500 |
| 4 | 70 | Slander | 9000 - 12000 |
| 5 | $70^1$ | Incitement to discrimination | 6000 - 10500 |
| 6 | $70^2$ | Harassment | 7500 - 12000 |
| 7 | $70^3$ | Victimisation | 6000 - 10500 |
| 8 | 71 | Violation of the legislation on access to information and on petitions | 1350 - 1650 |
| 9 | 109 | Violation of the water protection regime | 30000 - 40000 |
| 10 | 154 | Violation of waste management rules | 30000 - 40000 |
| 11 | 156 | Failure to comply with the provisions of the legislation on EIA | 9000 - 12000 |
| 12 | 163 | Violation of the Regulation on the protection of electricity networks | 3000 - 6000 |
| 13 | 177 | Violation of legislation and normative documents in spatial planning, urban planning and construction: | |
| | (1) | The violation of the legislation in the field of urban planning and constructions | 12500 – 15000 |
| | (2) | Violation of legislation and normative documents in construction (lack of information panel at the construction site or its non-compliance with the provisions of the normative acts) | 17500 - 25000 |
| | (3) | Violation of the legislation in the field of construction manifested by the execution of construction works without a building permit or project, based on unverified, uncoordinated, unapproved, unapproved projects in the established manner, in violation of the project or Building Permit | 50000 – 75000 |

## 11.2 Internal audit

### 11.2.1 Audit performed by the Supervision Consultant

The Supervision Consultant (Engineer) will conduct internal audits at regular intervals to provide the Employer with information on the following:

- Whether the Project's specific ESMP, LMP and Code of Conduct, etc., have been developed by the Contractor in accordance with all requirements set out in the present documents; and
- Whether the Contractor and Subcontractors are effectively implementing and maintaining these.

[82] The Contravention Code no. 218/2008: https://www.legis.md/cautare/getResults?doc_id=150830&lang=ro

### 11.2.2 Audit performed by the General Contractor

The General Contractor shall conduct internal audits at planned intervals of their subcontractors, supply chain and other service providers. This is to ensure that the provisions of the Project's specific ESMP, LMP and Code of Conduct, etc., as well as the Contractor's own ESMP, OHSP and CoC, are observed on the construction site. It is also to ensure that labour and working conditions comply with fundamental human rights and freedoms. The results of the audit shall be reported to the Supervisory Consultant, taking into consideration the following principles.

(a) Respect for fundamental human rights and freedoms;
(b) Respect for the best interests of the child;
(c) The confidentiality of information concerning the private lives of victims and presumed victims of human trafficking;
(d) Legality;
(e) Free access to justice;
(f) Non-discrimination;
(g) A multidisciplinary and cross-sectoral approach;
(h) Unconditional access to protection and assistance for victims of human trafficking;
(i) Equal treatment of all forms and types of national or transnational human trafficking, whether or not they are linked to organised crime;
(j) International cooperation.

## 11.3 Management Review

During the construction phase, the Engineer will be responsible for environmental and social performance. They will report to the Employer on the implementation of the requirements established in the Project's specific ESMP for the reconstruction process of the express road M1, Lot No. 2.

# 12 EVALUATION OF COMPLIANCE

## 12.1 General

Non-conformity is defined as the failure to comply with the requirements of this document, or any occurrence resulting in injury or ill health that may arise from work activities. It also encompasses incidents and accidents.

The Project's specific ESMP for the reconstruction process of the express national road M2 (Lot No. 1) shall be implemented during the construction phase by the Contractor. The Engineer will oversee the implementation process of the present document in an open and transparent manner, and performance monitoring and measurement results shall be reported monthly to the Employer.

The provisions of the Project's specific ESMP for reconstruction process of the express national road M1 Lot no.2 shall be implemented **during operational phase** by the Employer and State Supervision Agencies (Environmental, Health and Safety, Social, etc.) shall monitor the implementation process by issuance of the legal permits (Authorizations, Permits, Notices, etc.) in an open and transparent manner and monitoring and measurement performances shall be reported monthly to the Hincesti and Nisporeni District Councils and PPA and MoIRD.

Should there be non-compliance with the provisions set out in the Project's ESMP for the rehabilitation of the express road M1, or should there be non-conformity, this shall be recorded by the Engineer in the Non-Conformity Report. The Non-Conformity Report shall establish the necessary correction actions and take the necessary steps to control and correct any non-conformity.

## 12.2 Incidents

### 12.2.1 Incidents occurring during construction phase

Incident means occurrence arising out of, or in the course of, work that could or does result in injury and ill health. An incident where injury and ill health occurs is sometimes referred to as an "accident". An incident where no injury and ill health occurs, but has the potential to do so, may be referred to as a "near-miss", "near hit" or "close call".
Although there can be one or more nonconformities related to an incident, an incident can also occur where there is no nonconformity.

Any Incident occurring on the Construction site of the Project or caused by the construction activities shall be reported by the Contractor/ subcontractor to the Engineer and the Employer as soon as possible and not later than 24 hours after the incident occurred.

The Incident Report form is presented in the Annex 1.

### 12.2.1 Incidents occurring during operational phase

The Employer shall comply with applicable laws of Republic Moldova and legal permit issue by the State Supervision Agency based on its ESMS.

## 12.3 Nonconformity and corrective action

### 12.3.1 Identified non-conformity during construction phase

Non-conformity is defined as the failure to comply with the requirements outlined in the current Project's ESMP for the reconstruction process of the express national road M1, Lot No. 2. It is imperative that all requirements stipulated in this document for the construction stage are closely monitored and that any necessary corrective actions are implemented on site.

The nonconformity and corrective action process is a reactive process, initiated in the event of noncompliance with the requirements specified in this document. The process employs the principles of root cause analysis, a fundamental approach to problem solving that focuses on the "cause" and "effect" relationship, with the objective being the elimination of the cause. The actions taken must be appropriate and proportionate to the impact of the nonconformity. As part of the corrective action process, the effectiveness of the actions taken must be reviewed to ensure they are effective.

Corrective action refers to the process of addressing and resolving issues that fall short of established standards, with the goal of preventing their reoccurrence. The core objective of the corrective action process, outlined in this document, is to identify and address the root causes of actual noncompliance issues to prevent their reoccurrence. The Nonconformity and Corrective Actions Report form is presented in the Annex 2.

### 12.3.2 Identified non-conformity during operational phase

Nonconformity relates to the requirements set out in this document for managing environmental and social aspects during the operational stage, for which the Employer is responsible. The Employer will revise and maintain its ESMS based on national and international requirements, including special requirements for the operation of the new facility.

Corrective action refers to the process of addressing and resolving any issues that fall short of the required standards. This involves identifying and eliminating the root causes of any non-conformities or incidents, as well as implementing measures to prevent their reoccurrence.
Reporting to the State Supervision Agency is a crucial aspect of this process, and it should be conducted in accordance with the applicable ES laws. The primary objective of the corrective action process is to address the underlying causes of non-compliance, thereby preventing the reoccurrence of such issues.

# 13 INSTITUTIONAL ARRANGEMENTS

## 13.1 Institutional responsibilities

The Project Management Unit (Ministry of Infrastructure and Regional Development) is responsible for monitoring the implementation of the Project. It is also responsible for ensuring that roles and responsibilities are clearly defined and that sufficient resources are allocated for project implementation, as agreed by the European Bank for Reconstruction and Development (EBRD) and the Government of the Republic of Moldova.

## 13.2 Project Management Unit (PMU)

The Ministry of Infrastructure and Regional Development is the central body responsible for promoting the state policy in the field of infrastructure and regional development. It carries out its activity in accordance with the Regulation on the organisation and functioning of the Ministry of Infrastructure and Regional Development, approved by Government Decision No. 690/2017, the Constitution and laws of the Republic of Moldova, Parliament Decisions, acts of the President of the Republic of Moldova, Government decisions and provisions, as well as other normative acts. The MoIRD performs functions in the following areas:

**ROAD INFRASTRUCTURE**

Rehabilitation, modernization and expansion of the national road network;

Establishing a sustainable financing mechanism for the maintenance of public roads and increasing the responsibility for their management;

Improving road safety.

**TRANSPORT**

Development of railway transport;

Development of air transport;

Development of naval transport;

Development of road transport.

**URBAN PLANNING, CONSTRUCTION AND HOUSING**

Development of the field of spatial planning and urban planning;

Quality system assurance in construction;

Administering and ensuring access to safe, affordable housing connected to modern utilities.

## 13.3 Project Implementation Unit (PIU)

The Project Implementation Unit has been created within the SA National Road Administration (NRA)[83] and has the task to ensure the efficient implementation of the Moldova Road Project V by the project administration, monitoring and coordination together with hired Technical Consultants in accordance with the Loan Agreement and ESAP[84].

[83] Source: https://www.andsa.md/en/

[84] Source: https://www.andsa.md/

The Employer JSC National Road Administration operates in accordance with the legislation in force of the Republic of Moldova and requirements established in ESAP, approved Project Operational Manual, procedures and standards of the EBRD and other international financing organizations.

The Employer and its PIU are committed to complying with the relevant EBRD Performance Requirements and the applicable technical and ES laws of the Republic of Moldova. They will also implement the Project's Environmental and Social Management Policy and Strategic Objective by promoting the following principles:
- sound worker-management relationships and enhance the development benefits by treating safe and healthy working condition,
- use efficient and effective resources, pollution prevention and GHG emission avoidance, minimize the generation of wastes, etc.;
- protect community and ensure health and safety for affected communities and peoples;
- protect biodiversity and cultural and natural protected heritage;
- engage communities in the construction process and ensure the environmental and social sustainability and acceptance by the community.

## 13.4 The Engineer (Supervision Consultant)

The primary objective of the assignment for the Supervision Consultant (Engineer) is to assist the Employer and PIU in the administration and supervision of the Works Contract on the reconstruction process with due diligence, to carry out the duties assigned to him in the Contract and to provide other services as required.

The Engineer, who will be hired by the Employer to supervise the implementation of civil works on a daily basis, will be responsible for ensuring that works and measures are implemented in a timely, proper and reliable manner, in accordance with the specific ESMP, LMP, HSS & CoC, SEP for the reconstruction process of express road the M1 Lot no. 2.

The Employer will be responsible for overseeing the environmental and social aspects of all construction activities implemented for the reconstruction process of the M1 (Lot No. 2) road. This will ensure that mitigation measures are designed and implemented properly to prevent and minimise likely adverse environmental and social impacts.

The Supervision Consultant (Engineer) will also be responsible for ensuring that all necessary agreements and permits are obtained by the General Contractor from the relevant state and local authorities prior to the commencement of construction works. The Engineer may request to check the issuance and validity of such permits, as well as the implementation of ESMP mitigation and monitoring aspects during the construction activities for the rehabilitation process of the express road M1, in accordance with the Republic of Moldova environmental and social legislation.

## 13.5 The General Contractor

During the construction phase, the General Contractor shall be responsible for the physical implementation of mitigation measures provided under the Project's specific ESMP, as well as for obtaining all construction activities-related permits and agreements in accordance with the contractual documents and the environmental and social legislation of the Republic of Moldova.

The Supervision Consultant (Engineer) shall have a qualified and experienced Environmental Health and Safety (HSE) Manager in its team, who will ensure that the Constructor carries out the day-to-day implementation of the ESMP in line with the environmental and social clauses included in the contractual documents. The Contractor will have to appoint HSE Officers who will actually organise the process of implementing mitigation measures on site during the construction phase.

# 14 STAKEHOLDER ENGAGEMENT AND PARTICIPATION

## 14.1 Public Consultations and Disclosure

### 14.1.1 Public Consultation Meetings

As part of the development of the draft project's specific ESMP during the detailed design stage for the reconstruction process of the M1 road (Lot no. 2), a public consultation will be organised at the Hincesti and Nisporeni District Councils premises. The consultation will invite the affected villages from the Hincesti District (Ivanovca, Onesti, Bujor, Chetroseni and Mircesti) and the Nisporeni District (Boltun, Cristesti and Iurceni (Mirzoaia), the community from the Hincesti and Nisporeni Districts, the Hincesti and Nisporeni District Councils, the Hincesti and Nisporeni Construction Directorate and other interested parties, as per the revised ESMP. Representatives from the Environmental Agency, the Hincesti and Nisporeni Environmental Protection Inspectorates (EPI), the National Inspectorate for Technical Supervision, the National Agency for Public Health and the Hincesti and Ungheni Centres for Public Health, the National Employment Agency (ANOFM), the ME Apa Canal Hincesti and Nisporeni, etc. will also be invited to the public consultation meeting.

The objective of the community's involvement in the public consultation process is to ensure that the proposed technical solution for the reconstruction of the express national road M1 (Lot no. 2) and the identified environmental and social risks, along with the proposed mitigation measures, are disclosed on the websites of the Employer, the Hincesti and Nisporeni District Councils, the Ministry of Regional Development and Information (MoIRD), and the community. The effective dissemination of information to stakeholders and other interested parties regarding the proposed mitigation measures for the reconstruction process is essential for the development of a strong, constructive and responsive relationship between the parties. The provision of a communication channel with a complaint mechanism is a crucial element for the project's specific ESMP improvement.

The following stakeholder engagement activities have been performed so far:

Table 14-1: Previous Public Consultation during the pre-construction stage

| Periods | Topics | Consultation sessions (No.) | Consulted localities/persons (No.) | Details | Status |
|---|---|---|---|---|---|
| 2025 | Received the Archaeological Notice | The National Archaeological Agency | NAA and MoC | Provide document to the Design Consultant | Done |
| 2025 | Received the Notice from the Ministry of Culture | MoC | MoC | Provide document to the Design Consultant | Done |
| August 2025 | Environmental Permit no. 24 | The issued document is disclosed on the Employer web site | During design process the Project's specific ESMP was developed | The DD shall be developed based on RM and EBRD ERS no.1 | Done |
| 2025 | Planning town Urbanism Certificate for Design issued by the Hincesti District Council | The Technical Design was developed based on PTUCD | The Hincesti District<br>Design Consultant | The Hincesti District<br>Design Consultant | Done |
| 2025 | Development of the technical design | The Technical Design has been coordinated with the Beneficiary | Staff of the Designer<br>Employer's Technical staff | DD was developed based on applicable requirements of RM | Done |
| Q-4-2025<br>Q-1-2026 | Development of the draft Project's specific ESMP, LMP, CoC, etc. | Public Consultation shall be organized at the Hincesti District Council | The Hincesti District Council and affected communes/ villages from the Hincesti District Lot no.1 | At the PC meeting shall be presented DD and mitigation measures | TBD |
| Q-2<br>2026 | Receive and disclose the Construction Authorization | Organise Public Consultation at the Hincesti District Council and invite affected communities to the public consultation process | Hincesti District Council and affected communities/ villages form the Hincesti District Lot no.1 | Provide information to the specific stakeholder based on NTR and Power point presentation | TBD |
| 2026 | Disclose the Contractor Work Program | Organise Public Consultation with affected communes and villages | Villages<br>Bujor, Chetroseni, Miresti (Hincesti)<br>Boltun, Cristesti and Iurceni (Nisporeni) | Provide the map of local road to be used during construction stage, etc. and other Hs measures | TBD |
| 2026 | Establish SIMC in affected communities | Provide the draft SIMC Regulation to the LPAs | Establish SIMCs with members | Provide information to the specific stakeholder based on SIMC Regulation and Power point presentation | TBD |

At the detailed design stage, the public consultation process ensures that the relevant, understandable and accessible information described in the project's specific ESMP is provided to the affected community, stakeholders and other interested parties. The communication procedure shall generate mutual trust, respect and transparency between the employer and the stakeholders, with the aim of receiving feedback to improve the present. Ultimately, the objective is for the engineer and employer to be satisfied with the proposed mitigation measures.

### 14.1.2 Consultations Feedback and Complaint Mechanism

The draft Project's specific ESMP will be presented to the EBRD for review and examination, in order to receive their non-objection. Following this, the document will be disclosed on the website, so that technical staff, the community, suppliers and other interested parties have access to the ES information.

The ES disclosure package comprises the following documents:
(i) the project's specific ESMP, LMP, Code of Conduct, Consultation and Participation Plan, Complaints Mechanism, etc.;
(ii) the Environmental Permit No. 24 issued by the Environmental Agency;
(iii) leaflets; and
(iv) the complaint mechanism.
The documents will be published on the Employers' websites, the Hincesti and Nisporeni District Council and MoIRD's websites.

The draft Project's specific ESMP, LMP, CoC, etc. will be publicly disclosed and consulted by all interested parties for a minimum of 30 days. Comments, proposals and objections should be sent to the Employer via the e-mail address provided in the leaflet. Any valuable comments will be incorporated into the document. Direct comments can be provided during public consultations, before the meeting or after. Also, a complaint mechanism will be in operation during project implementation, and feedback can be received via different channels of communication: phone, e-mail, webpages, the Employer, the Hincesti and Nisporeni District Councils, MoIRD, etc.

The feed-back for proposals of the improvement of the Project's specific ESMP, LMP and the Code of Conduct shall be submitted centralized to the following e-mail: (i) Employer at cancelaria@andsa.md . The Employer is responsible together with the Design Consultant for technical aspects and also the Employer has overall responsibility for revising the present document by including proposals for improvement, grievances, complaints and other information and finally submit revised technical and ES documents to the Hincesti and Nisporeni District Councils for receiving Construction Authorization.

The form for providing feed-back from interested parties in presented in the Annex 1.

Table 14-2: Communication channel for submitting feed-back or complaints from community

| The National Road Administration (NRA) | The Hincesti District Council | The Nisporeni District Council |
|---|---|---|
| mun. Chișinău, str. Bucuriei, 12A MD 2004<br>Tel. (Green Line): (+373)78 337 744<br>Tel. (Green Line): (+373)60 477 117<br>Relații cu presa: (+373) 60477004<br>Email: cancelaria@andsa.md, serviciu@andsa.md, presa@andsa.md | mun. Hîncești,<br>126 Mihalcea Hîncu str. 3rd Floor, of. 30<br>Phone: (0269) 22058<br>Email: consiliul@hincesti.md<br>Web page: https://hincesti.md/ | str. Ioan Vodă 2, MD – 6401<br>or. Nisporeni, Republica Moldova<br>E-mail: consiliul.raional-nisporeni@apl.gov.md cr.nisporeni@gmail.com<br>Președinte: (+373) 264-2-26-50<br>Vicepreședinte: (+373) 264-2-27-50<br>Vicepreședinte: (+373) 264-2-20-56<br>Secretarul Consiliului: (+373)26422057<br>Anticamera: (+373) 264-2-20-58 |
| Verbal complaints addressed to Project staff could be recorded in writing by the receiver and submit to Employer for revising the Project's specific ESMP and PC Report. | | |

### 14.1.3 Complaint Mechanism for consultation process

The Employer will be organising a public consultation on the premises of the Hincesti and Nisporeni District Councils. They will be inviting affected communities, district specialists and other relevant professionals to attend. The material to be presented at the consultation will be in Romanian. During the consultation, a leaflet will be used to provide specific information about the Project and its objectives. Participants will be able to use the complaints mechanism (CM) to improve the project's ESMP/LMP, the Code of Conduct, etc.

In accordance with the public consultation process, a non-technical report will be developed. This will be based on the mitigation measures presented in the project's specific ESMP/LMP/CoC, etc. It will be available in Romanian and presented in a simple and easily understandable format for the local community. The non-technical report will be disclosed on the employer's website and also disseminated in paper format.

The following web sites can be accessed to and are available for find out much more information about the project implementation process: (i) https://www.andsa.md/

## 14.2 Installation of the Site Informational Panel on the construction site

The site informational panel will be displayed on the construction site at a clearly visible location at the main entrance, or at an alternative point as agreed upon with the Engineer and the Employer.

The panel will be constructed from waterproof and reinforced materials and will contain the following information: contract name, financing entities, employer, beneficiary, contractor, engineer/consultant, contract value, contract duration, start and finish of the works.

**The site informational panel shall contain the communication channels with complaint mechanism (CM) (e-mail addresses, phone numbers, etc.) for submitting feed-back or complaints from community and other interested parties of the (i) Employer, (ii) Beneficiary, (iii) Contractor, (iv) Engineer, the Hincesti and Nisporeni District Councils, etc.**

## 14.3 Consultation and participation of the community

The community plays a key role in the Project implementation by monitoring the social aspect of ensuring that community day-to-day activities at home or in the field do not disturb by the construction activities.

The site information panel will be displayed on the construction site in a visible place at the main entrance or in another place, after consultation with the Engineer, the Employer and all interested parties. The community can use available channels of communication or the Complaint Mechanism to submit complaints, proposals, information, petitions, etc. These will be analysed and discussed by the Engineer and the Employer.

# 15 Annexes

Annex no. 1 The feedback form for public consultation process
Annex no. 2 The Nonconformity and Corrective Actions Report template
Annex no. 3 The Incident Notification Report template
Annex no. 4 Requirements for developing the Contractor's ESMP
Annex no. 5 Biodiversity Survey

## Annex no. 1: The feedback form for public consultation process

| | |
|---|---|
| **Reference No:**<br>*(to be completed by PIU)* | Received by: _____<br>Solved by: _____<br>Date of initial response:<br>_____ |
| **Full Name:**<br><br>*(to be completed by the person lodging the complaint)*<br><br>*Note: you can remain anonymous if you prefer or request not to disclose your identity to the third parties without your consent* | My first name:<br>_____<br>My last name:<br>_____<br>Company/Position in the company:<br>_____<br>☐ I wish to raise my complaint anonymously<br>☐ I request not to disclose my identity without my consent |
| **Contact Information:**<br><br>*(to be completed by the person lodging the complaint)*<br><br>Please mark how you wish to be contacted (mail, telephone, email). | ☐ By Post: Please provide mailing address:<br>_____<br>☐ By phone: _____<br>☐ By e-mail: _____ |
| **Preferred Language for Communication:**<br>*(to be completed by the person lodging the complaint)* | ☐ Romanian<br>☐ Russian |
| **Description of Complain or Request:**<br>(to be completed by the person lodging the complaint) | ☐ Yes<br>☐ No |
| **Description of Complain or Request:**<br>*(to be completed by the person lodging the complaint)* | What can happen? Where and How could it happen? What are the consequence / impact of this issue? |
| **Date of Complain/Request:**<br>*(to be completed by the person lodging the complaint)* | DD / MM / YYYY<br>_____ |
| What would you like to see happening in order to solve this issue?<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____ | |

# Annex no. 2: The Nonconformity and Corrective Actions Report form

| **Part A: Nonconformity Report** | | | |
|---|---|---|---|
| **Non-conformance (To be completed by NCR Preparer or Auditor):** | | | |
| **Title of NCR:** | | | |
| **NCR Number:** | | **Date Issued:** | |
| **NCR Prepared By:** | | **NCR Issued To:** | |
| **Job Title** | | **Job Title** | |
| **CS Engineer** | | **Contractor** | |
| **EHSS Expert** | | **Subcontractor** | |
| **Details of the Non-conformance (To be completed by NCR Preparer or Auditor)** | | | |
| **Major** ☐ | | **Minor** ☐ | |
| **Description**<br>Insert a clear and concise description of the Non-conformance identified and any additional supporting documents (such as reports, drawings, photographs, etc.) evidencing the situation/problem identified, and attach to the NCR. | | | |
| | | | |
| **Requirement relating to the Non-conformance**<br>Insert details of the relevant governance document(s) such as contract, procedure, specification or standard, as applicable (including any Document Reference Numbers) | | | |
| | | | |
| **Part B: Classification of aspects and dangers** | | | |
| **For reporting/benchmarking purposes, Non-conformances are classified into at least one of six categories. Tick the most appropriate options below** | | | |
| | To be completed by NCR Preparer or Auditor | | |
| | **1** | **Materials** | |
| | **2** | **Machine & equipment** | |
| | **3** | **Measurement (monitor and control by management)** | |
| | **4** | **Manpower (training included)** | |
| | **5.** | **Methods (workmanship included)** | |
| | **6** | **Health and safety** | |
| | **7.** | **Environment and Social** | |
| **Details of the Root Cause Documentation**<br>Refer any internal meetings, investigations, audits that took place to identify and confirm root cause and attach any relevant records (Minutes, reports etc.) | | | |
| **Time table:** | | | |
| **Proposed by:**<br>Name: Date: | | | |
| **Reviewed by:**<br>Name: | | | |

| | | | |
|---|---|---|---|
| Signature:<br>Date: | | | |
| **Part C: Remedial (Correction) and Corrective Action(s) to address Non-conformance** | | | |
| **Correction Actions (To be completed by the Responsible Manager)**<br>Insert a clear and concise description of the Correction (Remedial Action to be taken to rectify the Major Non-conformance identified) | | | |
| | | | |
| **Proposed by**<br>**Name of Responsible Manager:** | | **Job Title:** | |
| **Planned Completion Date:**<br>(Specify an appropriate and realistic date) | | **Signature:** | |
| **Reviewed by**<br>(Name of NCR Issuer or Issuer Line Manager) | **Date:** | **Signature** | |
| **Corrective Action(s) (To be completed by Responsible Manager):**<br>Please insert details of the Corrective Action to be taken to prevent recurrence of the identified Non-conformance. | | | |
| | | | |
| **Proposed by:**<br>**Name of Responsible Manager:** | | **Job Title:** | |
| **Expected Timescale:**<br>(Specified date; monthly; periodic; on-going; etc.) | | **Signature:** | |
| **Reviewed by**<br>(Name of NCR Issuer or Issuer Line Manager) | **Date:** | **Signature** | |
| **Part D: Closure of Non-conformance** | | | |
| **Verification of completion of the Corrective Action(s) (To be completed by NCR Preparer or Auditor)** | | | |
| **Verified Complete**<br>(Select as applicable) | **Yes** □<br>**No** □ | **The Corrective Action(s) above have been satisfactorily completed by the relevant Responsible Manager.** | |
| **Comments:** | | | |
| **Verified by NCR Preparer or Auditor:** | | | |
| **Name:** | | **Date:** | |
| **Job Title:** | | **Signature:** | |
| **Reviewed/Approved by:**<br>(Lead Auditor, Quality Manager or other Senior Manager as per applicable NCR Procedure) | | | |
| **Name:** | | **Date:** | |
| **Job Title:** | | **Signature:** | |

## Annex no. 3: The Incident Notification Form (template)

| INCIDENT REPORTING FORM | | | |
|---|---|---|---|
| **General Information** | | | |
| Project Name, Activity | | | |
| Name of Project Implementing Agency | | | |
| Name of Contractor and subcontractors | | | |
| Name, position & company of main person(s) involved with/ causing the Incident | | | |
| **Details about Accident / Incident** | | | |
| Date and time of incident | | | |
| Location of incident | | | |
| Type of incident | *E.g. Fatality, Injury, major oil spill, social unrest, outbreak of violence, labour strikes etc.* | | |
| Detailed description of incident (attach photos if needed) | *Describe in detail what has happened in a chronological manner. Who was involved? Which activities were performed? Under which external circumstances did the incident occur? What was the reason for the Incident? Etc.* | | |
| Describe victims and damage | *Fatalities (including number deceased and differentiating between employee/ contractor fatalities and members of the public).*<br>*Number injured (mention hospitalizations/ loss of limb).*<br>*Number of injured in the community (if any).*<br>*Loss/ damage to company facilities or operating environment.*<br>*Environmental damage (e.g. water pollution, etc.).* | | |
| Describe immediate response | *Which immediate activity was taken? E.g. construction activities interrupted, first aid given, injured person taken to hospital, police informed, task force implemented etc.* | | |
| Describe long-term response | *Describe long-term activities to prevent this incident to happen again. Describe further investigations if any. Describe how lessons learned will be shared among employees.* | | |
| **Incident Report Approval** | | | |
| | **Position** | **Name** | **Date** |
| Prepared by | | | |
| Approved by | | | |

## Annex no. 4 Requirements for developing the Contractor's ESMP

**Annex no. 5 Biodiversity Survey**