



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 Nisporeni and Strasen Districts**

Lot no. 3 (km 39+000 - km 61+750)

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.**

 Ministry of Infrastructure and Regional Development	THE MOLDOVA ROAD PROJECT V The Project's specific ESMP for reconstruction of the express road M1 located in the Nisporeni & Strasenii Districts Lot no. 3 (km 39+000 – km 61+750) THE TECHNICAL DESIGN STAGE – REQUIREMENTS	 S.A. ADMINISTRATIA NATIONALA A DRUMURILOR
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Executive Summary

In accordance with the Contract Agreement for Lot 3, signed by the JSC National Road Administration (the Employer) and the General Designer, „Simbo-Proiecte” 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 3 (km 39+000 to km 61+750). 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. 3. 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. 3 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.

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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. 3). 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 for Design issued by the Nisporeni District Council
2. The Planning Town Urbanism Certificate for Design issued by the Straseni District Council
3. The Environmental Permit¹ 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 Technical Design no. and the verification Report of the Technical Design
7. ESAP of the Moldova Road Project V
8. Stakeholder Engagement Plan

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.

¹ Source: <https://www.andsa.md/acorduri-de-mediu/>

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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.

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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

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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

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4 THE PROJECT CONTEXT

4.1 General data

On January 22nd 2024, the European Bank for Reconstruction and Development (EBRD)² and the Government of the Republic of Moldova³ (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, tranché. 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.

² Source: <https://www.ebrd.com/home/work-with-us/projects/psd/54423.html>

³ Source: <https://gov.md/index.php/en>

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4.3 Project Beneficiaries

The Project beneficiaries are:

- The Government of the Republic of Moldova⁴;
- The Ministry of Finance⁵
- The Public Property Agency⁶;
- The Ministry of Infrastructure and Regional Development⁷;
- The Hincesti District Council, the Nisporeni District Council, the Straseni District Council, the Ialoveni District Council and the Chisinau Municipal 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

⁴ Source: <https://gov.md/ro/autoritati-administrative-centrale>

⁵ Source: <https://mf.gov.md/ro>

⁶ Source: <https://app.gov.md/>

⁷ Source: <https://midr.gov.md/portofoliu/transport>

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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) „Simbo-Proiecte” SRL for the development of the technical design for the M1 road sector, spanning from the Romanian border to Leuşeni, Chisinau, and Dubasari, and continuing to the Ukrainian border (Lot 3: km 39+000 - km 61+750).

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5 CHARACTERISTICS OF THE ROAD SECTOR LOCATED IN THE NISPORENI AND STRASENI DISTRICTS

5.1 General data

The design of the road sector km 39+000 - km 61+750 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.

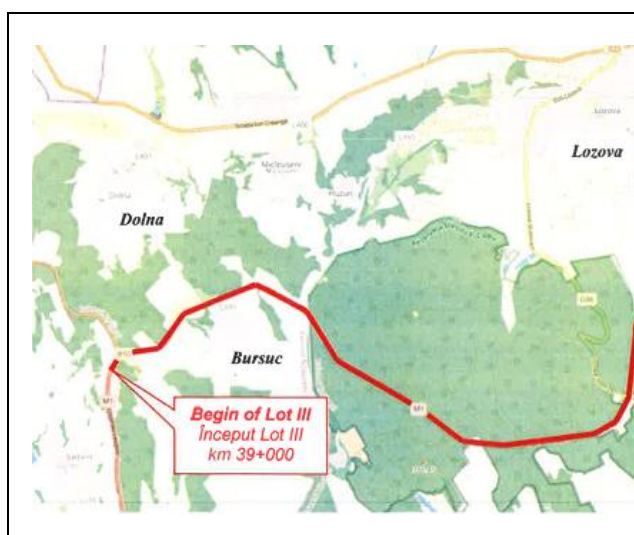


Fig. 5-1: The location of the Lot no.3 start at the km 39+000 in the Nisporeni District

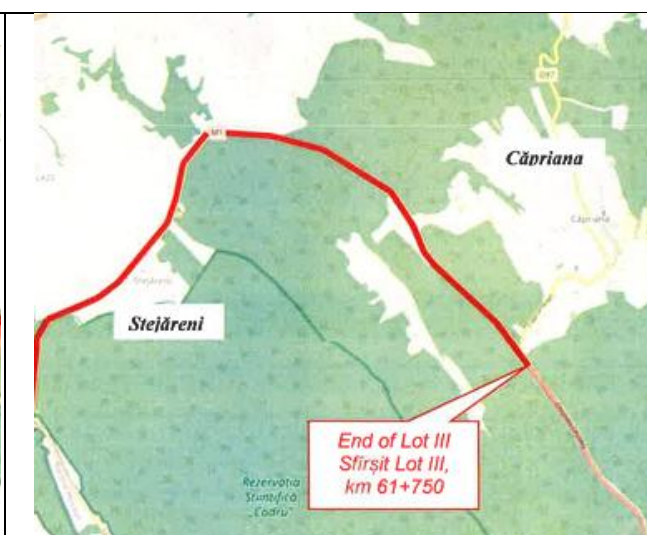


Fig. 5-2: The location of the Lot no. 3, end of the lot at the km 61+750 38+800, the Straseneni District

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

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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 Locations of the sector from the Lot no. 3

M1 at km 39+000 is immediately adjacent to the junction with road R10, but the exact designed intersection chainage is slightly higher. According to the official design documentation for the rehabilitation of the M1 Leușeni–Chișinău road, the project provides for a roundabout intersection with R10 at km 39+106.95.

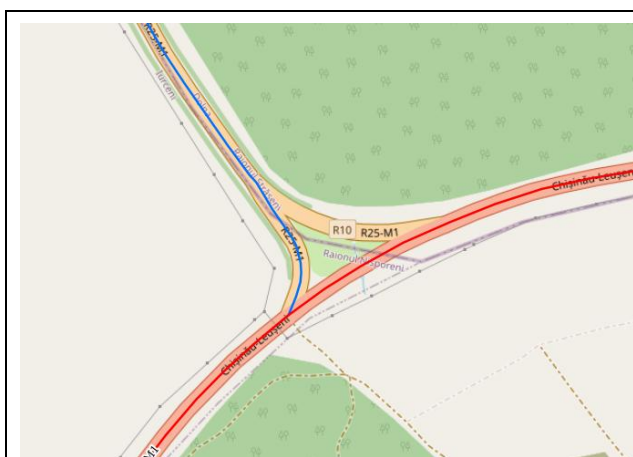


Fig. 5-3: The start of the Lot no.3 (km 39+000), end of the Nisporeni District and start of the Straseni District

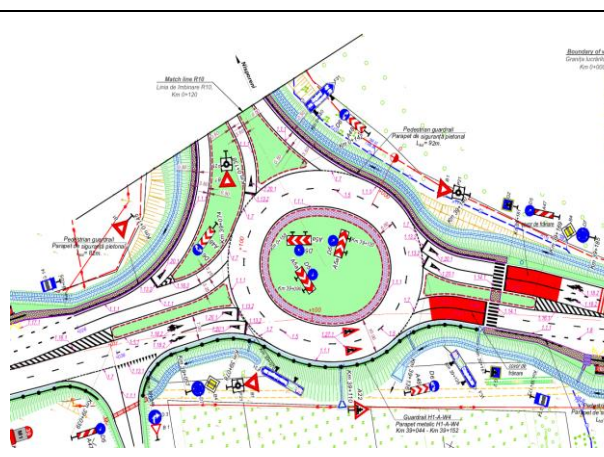


Fig. 5-4: The roundabout at the km 38+950 – km 39+320

The road runs in the close proximity of the Bursuc village from the Nisporeni District

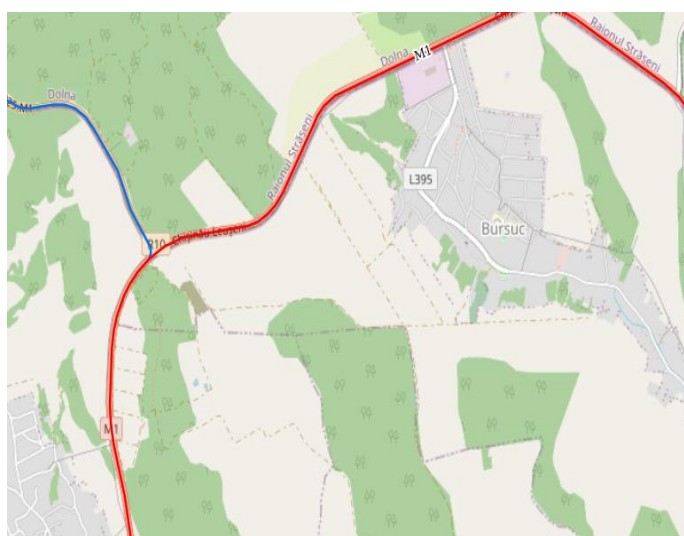
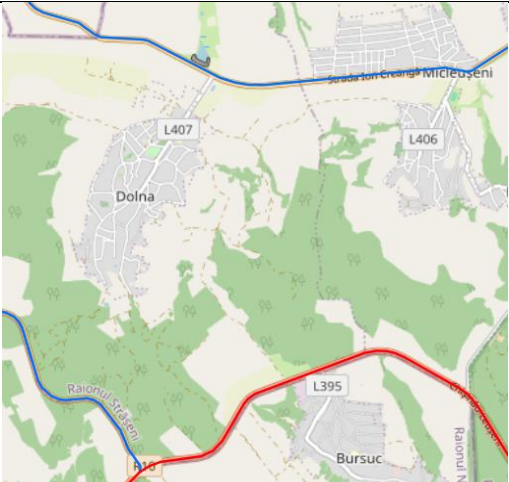
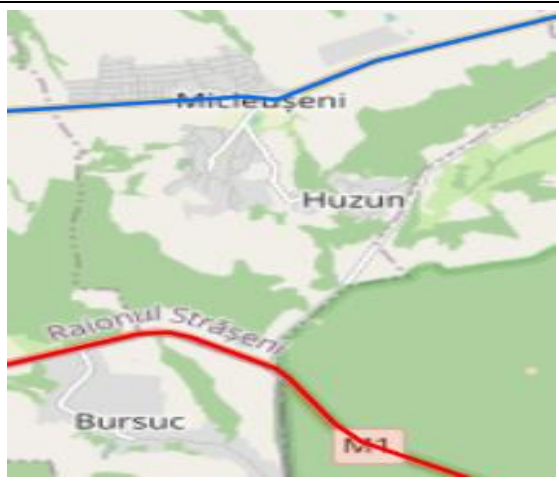
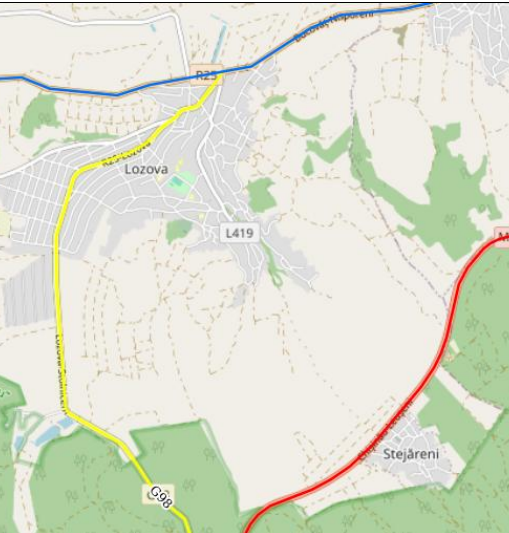
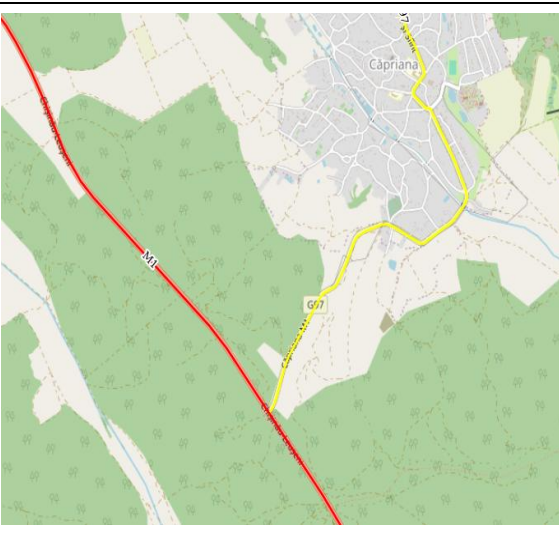


Figure 5-5: The Bursuc village located in the close vicinity of the national road M1

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The Dolna village, commune Micleușeni, comiune Lozova with Stejareni, road runs in the close proximity of the following localities from the Strasenii.

	
Fig. 5-6: The Dolna Village is located the area of influence of the express road M1 and has access via local road L407 to the R25	Fig. 5-7: The com. Micleușeni with Huzun village is located in the area of influence of the express way M1, with direct access to the M1 via the local road L450
	
Fig. 5-8: The Lozova com. Is located far from the express way M1, but v. Stejarei is located on the M1	Fig. 5-9: The end of the Lot no.3, km 61+750 – intersection with road G97 (R1–Pănășești–Căpriana–M1), Strășeni District

M1 Lot No. 3 (km 39+000–61+750) intersects the following principal republican, regional and local roads/access roads, according to the project documentation:

Table 5-1: M1 Lot no.3 intersects the following republican, regional and local roads/access roads

no.	M1 chainage	Intersecting road/access	Classification / connection
1	km 39+106.95	R10	Republican road

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2	km 41+281.87	L395 – M1–Bursuc	Local road providing access to Bursuc village, Nisporeni District
3	km 42+914.46	L420 – M1–Lozova	Local road providing access to Lozova village and toward Hîncu Monastery, Strășeni District
4	km 49+930.65	G98	Regional road, connecting toward R25 / Lozova
5	km 53+010.57	Access road to Stejăreni	Local access road to Stejăreni village, Strășeni District
6	km 61+718.36	G97 – R1–Pănășești–Căpriana–M1	Regional road; this junction is immediately before the end of Lot No. 3 at km 61+750

M1 Lot No. 3 crosses two Emerald Network sites: „The Codru” Emerald Site (MD0000004), approximately between km 43+000 and km 54+000, and the „Codrii Strășenilor” Emerald Site (MD0000010), approximately between km 54+000 and the end of Lot No. 3 at km 61+750.

Also, the M1 Lot No. 3 crosses areas of the State Forest Fund. Between approximately km 43+000 and km 54+000, the forest areas are managed by the „Codrii” Natural Reserve, while from approximately km 54+000 to the end of Lot No. 3 at km 61+750 they are managed by the Strășeni State Forestry and Hunting Enterprise. These sections also overlap with the Codru (MD0000004) and Codrii Strășenilor (MD0000010) Emerald Network sites, respectively.

5.3 The existing situation on the sector Lot no. 3

The existing M1 Lot No. 3, km 39+000–61+750, is currently operational but requires substantial rehabilitation to meet the required technical, safety and service standards. The project documentation requires a dedicated technical examination of the existing pavement structure and engineering structures, including field investigations, cores and selective pavement testing.

The existing M1 pavement is generally a semi-rigid pavement structure. The original road was constructed with cement-concrete slabs, which were subsequently overlaid with bituminous/asphalt layers. Maintenance performed over the years has largely consisted of local surface repairs, while the underlying concrete slab structure has generally remained in place.

The condition assessment for the existing M1 corridor identifies significant pavement deterioration, including:

- frequent transverse cracking, generally associated with reflection of joints between the underlying concrete slabs;
- longitudinal and other pavement cracking;
- rutting;
- settlement and local depressions;
- potholes;
- alligator/block-type cracking and pavement disintegration;
- numerous areas subjected to patching and crack sealing; and
- deficiencies in road geometry and, in some locations, insufficient carriageway/platform widths relative to current standards.

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For the investigated M1 pavement, the project documentation reports transverse cracks occurring approximately every 3 - 4 m, reflecting the joints of the underlying concrete slabs. Rutting, settlement and cracking-type deterioration account for approximately 28.8% of the assessed carriageway surface, while previously patched areas represent approximately 9.5%. The assessment classifies parts of the investigated road as being in mediocre to poor condition, although some sections remain in comparatively good condition.

For Lot No. 3, the rehabilitation design therefore provides for substantial upgrading rather than only routine resurfacing. The proposed alignment is generally retained on the existing road embankment, with modifications where necessary to improve horizontal and vertical geometry. The reconstructed Lot No. 3 is designed as a Technical Category III road with three traffic lanes and a reference/design speed generally of 80–100 km/h.

5.4 Proposed technical category for road M1

Based on the traffic study, existing road conditions, terrain characteristics and the requirements of NCM D.02.01 “Design of Public Roads”, the Designer proposed that M1 Lot No. 3 be rehabilitated as a Technical Category III road.

The main design parameters proposed for Lot No. 3 are:

- Technical category: Category III;
- Number of traffic lanes: 3;
- Lane width: 3.50 m;
- Shoulder width: 2.00 m, including a 0.50 m strengthened edge strip;
- Reference/design speed: 80–100 km/h, depending on the flat-to-hilly terrain conditions;
- General alignment: the rehabilitated road will predominantly follow the existing road embankment, with local adjustments where required to improve the horizontal and vertical geometry.

The adoption of Technical Category III was based on the results of the traffic assessment and takes into consideration the existing physical constraints of the corridor, including the hilly terrain, existing road footprint, adjoining land, forest areas and environmentally sensitive areas.

The proposed three-lane cross-section is intended to improve road capacity, traffic flow and road safety, particularly on sections with longitudinal gradients where the movement of heavy and slow vehicles may affect traffic conditions.

Accordingly, following rehabilitation, M1 Lot No. 3 is proposed to operate as a three-lane Technical Category III road with a design speed generally ranging between 80 and 100 km/h.

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5.5 Proposed technical aspects for road rehabilitation of M1 Lot no.3

5.5.1 General aspects

The proposed rehabilitation of M1 Lot No. 3 (contract limits km 39+000 - 61+750) is intended to improve the structural condition, traffic capacity, road safety, drainage and overall level of service of the existing road. The detailed design generally maintains the road along the existing embankment, with local realignments and geometric corrections where required. The design documentation technically assesses the section from approximately km 38+800.

Table 5-2: The principal proposed technical aspects for rehabilitation of M1 Lot no.3

no.	Technical aspect	Proposed solution
1	Technical category	Rehabilitation to Technical Category III, in accordance with NCM D.02.01:2023/2024
2	Design/reference speed	Generally, 80 - 100 km/h, depending on flat/hilly terrain conditions
3	Traffic lanes	Three traffic lanes
4	Lane width	3.50 m
5	Shoulders	Approximately 2.0 m, including strengthened edge strips where applicable
6	Road alignment	Existing alignment generally retained, with local improvement of horizontal and vertical geometry
7	Pavement	Rehabilitation/strengthening of the existing semi-rigid pavement, with solutions adapted to the condition of individual homogeneous road sections
8	Major intersections	Construction of six roundabouts at R10, L395, L420, G98, Stejăreni access and G97
9	Minor intersections	Improvement/reconstruction of 24 minor intersections/accesses
10	Pedestrian infrastructure	Sidewalks and pedestrian crossings at relevant junctions and service areas
11	Public transport	Bus stopping platforms and passenger waiting shelters at the principal roundabouts
12	Pedestrian underpass	Proposed at km 59+037
13	Parking/rest areas	Several roadside parking areas to be arranged along the sector
14	Drainage	Repair, extension and construction of culverts, road channels/gutters and drainage facilities
15	Road safety	New road markings, signs, safety barriers, pedestrian facilities and improved junction geometry
16	Utilities	Protection and/or relocation of utilities affected by road widening and reconstruction
17	Earthworks	Local widening of the embankment, cuts/fills and slope works required by the new cross-section and geometry

The geometric design provides for horizontal curves with radii ranging approximately from 300 m to 7,000 m, taking into account the existing alignment and terrain constraints.

5.5.2 Pavement Rehabilitation

The existing pavement is a semi-rigid structure, comprising cement-concrete slabs overlain by bituminous layers. Because its condition varies considerably along the M1, the Designer has not treated the entire road using one uniform rehabilitation solution. Instead, the proposed pavement rehabilitation solutions are to be selected according to the technical condition and structural capacity

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of individual homogeneous sections, supported by field investigations and pavement testing. The pavement design also takes account of existing drainage deficiencies and the proposed finished road elevation.

The rehabilitation is therefore intended to address existing cracking, rutting, settlement, edge deterioration and other structural deficiencies while providing a pavement structure capable of accommodating forecast traffic loads.

5.5.3 Improvement of Road Geometry

The proposed road will principally remain within the existing M1 corridor. However, horizontal and vertical geometry will be modified locally where necessary to improve visibility, operating conditions, safety and compliance with the applicable road-design standard.

The principal cross-section will consist of three traffic lanes, each approximately 3.50 m wide, together with shoulders and associated safety infrastructure. The three-lane arrangement is particularly relevant to sections where overtaking opportunities and movement of slow/heavy vehicles need to be improved.

5.5.4 Reconstruction of Intersections

Six principal existing junctions are proposed to be reconstructed as **roundabouts**:

- R10 – km 39+106.95;
- L395, access to Bursuc – km 41+281.87;
- L420, access toward Lozova and Hîncu Monastery – km 42+914.46;
- G98 / R25 connection – km 49+930.65;
- access to Stejareni – km 53+010.57; and
- G97, R1–Panasesti – Capriana - M1 – km 61+718.36.

At these junctions, the design also provides for bus stopping platforms, parking facilities, passenger shelters, sidewalks and pedestrian crossings. A further 24 minor intersections/accesses are included in the rehabilitation works.

5.5.5 Stormwater Drainage

Improvement of drainage is a major component of the rehabilitation because existing culverts and drainage channels show deficiencies including sedimentation and inadequate disposal of stormwater.

The design for Lot No. 3 provides for:

- extension and repair of 13 reinforced-concrete Ø1,000 mm tubular culverts;
- extension and repair of 8 reinforced-concrete Ø1,500 mm tubular culverts;
- construction of 2 new Ø1,000 mm tubular culverts;
- construction of 3 reinforced-concrete 1,000 × 1,000 mm box culverts;
- installation of 10 culverts at side roads and accesses; and

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- approximately 11,433 m of road drainage gutters/channels.

These works are intended to ensure controlled collection and discharge of stormwater, reduce water accumulation on the carriageway and limit erosion of the road embankment.

5.5.6 Parking, Public Transport and Pedestrian Facilities

Several parking/rest areas are proposed, including facilities around km 46+180, km 51+492, km 54+164 - 54+390 and km 58+225 - 58+990. The project additionally provides for a pedestrian underpass at km 59+037.

These measures are intended to improve road-user safety and provide safer access for passengers and pedestrians at locations where the M1 connects with neighbouring communities.

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6 POLICY AND REGULATORY FRAMEWORKS

6.1 Applicable Policy and Regulations of the Republic of Moldova

The Association Agreement⁸ 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 Plan⁹ of the EU-Moldova Association Agreement for 2014-2016.

The Republic of Moldova¹⁰ 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 2030¹¹ is a strategic document that allows the Republic of Moldova to orient towards a low carbon economy and to achieve the targets mentioned in 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"¹², 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

⁸ Source: <https://eur-lex.europa.eu/EN/legal-content/summary/association-agreement-with-moldova.html>

⁹ Government Decision no. 808/2014: https://www.legis.md/cautare/getResults?doc_id=88616&lang=ro#

¹⁰ Source: https://neighbourhood-enlargement.ec.europa.eu/european-neighbourhood-policy/countries-region/moldova_en

¹¹ GD no. 1470/2016: https://www.legis.md/cautare/getResults?doc_id=129232&lang=ro#

¹² Law no. 315/2022 for the approval of the National Development Strategy "European Moldova 2030" (published in OM no. 409-410/2022)

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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 2013-2027¹³ 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.

¹³ GD no 248/2013: https://www.legis.md/cautare/getResults?doc_id=114412&lang=ro#

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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 Nisporeni & Straseni District Councils for the purpose of receiving construction authorisation/permit:

- The Urbanism Certificate for Design issued by the Nisporeni and Straseni 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 Nisporeni & Straseni Districts shall issue the Construction Authorizations within 30 days for the construction process for rehabilitation works of the road M1.

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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

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Legal acts	General overview	Applicability and Relevance	How to comply during design stage
Applicable Environmental Laws			
Environmental Protection ¹⁴ Law #1515/1993	Law 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	Fully applicable/ High relevance	Compliance shall be demonstrated through completion of the applicable EIA/Biodiversity Assessment procedures, incorporation of the Environmental Agreement and biodiversity conditions into the Technical Design, preparation of the Environmental Protection Section in accordance with NCM A.07.06:2016, application of pollution-prevention and biodiversity-protection measures, public consultation, and transfer of residual environmental requirements into the construction contract and C-ESMP
Environmental Impact Assessment ¹⁵ Law #86/2014	Law establishes the national legal framework for the Environmental Impact Assessment (EIA) and biodiversity assessment of planned public and private activities that may generate significant effects on the environment and human health.	Fully applicable/ High relevance	
Green Spaces of the Urban and Rural Localities Law ¹⁶ #591/1999	Law No. 591/1999 regulates the development, management and protection of green spaces within urban and rural localities and establishes requirements intended to conserve vegetation and maintain the ecological, sanitary, landscape and recreational functions of such areas.	Applicable Relevant	Identify and inventory affected green spaces and roadside vegetation; distinguish them from State Forest Fund land; optimise the design to avoid/minimise vegetation removal; coordinate interventions with the competent authorities; obtain applicable approvals; develop compensatory planting and landscaping measures; and incorporate tree protection, reinstatement and monitoring requirements into the Technical Design, specifications and BOQ.
The Water ¹⁷ Law #272/2012	Law establishes the national legal framework for the management, protection and sustainable use of surface water and groundwater resources, including prevention of deterioration of water bodies, protection of aquatic ecosystems and control of activities that may cause water pollution.	Fully applicable/ High relevance	Identify all surface-water and groundwater receptors and watercourse/drainage crossings; undertake hydrological and hydraulic assessment; design adequate culverts, stormwater drainage, erosion and sediment controls; prevent pollution of surface and groundwater; verify water-protection and sanitary zones; determine and obtain any required Environmental Authorization for Special Water Use; and incorporate all water-related mitigation, monitoring and permit conditions into the Technical Design, specifications and BOQ.

¹⁴ Source: https://www.legis.md/cautare/getResults?doc_id=88192&lang=ro

¹⁵ Source: https://www.legis.md/cautare/getResults?doc_id=139828&lang=ro#

¹⁶ Source: https://www.legis.md/cautare/getResults?doc_id=141075&lang=ro#

¹⁷ Source: https://www.legis.md/cautare/getResults?doc_id=144636&lang=ro#

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Legal acts	General overview	Applicability and Relevance	How to comply during design stage
Land Code ¹⁸ #22/2024	The Land Code, in force from 1 April 2025, establishes the current legal framework governing land relations, land categories, land use, change of land designation, protection of land resources and responsibilities of landowners and land users in the Republic of Moldova.	Fully applicable/ High relevance	Identify and verify all permanent and temporary land requirements and cadastral parcels; confirm ownership, land category and designated use; minimise land take through design optimisation; complete applicable change-of-designation, transfer/acquisition or expropriation procedures; identify and compensate affected rights/assets as applicable; protect and restore soils and temporarily occupied land; and incorporate all land requirements into the Technical Design, cadastral plans and contractual documentation
Law ¹⁹ on State Supervision of Public Health #10/2009	Law establishes the general legal framework for the protection of public health in the Republic of Moldova, including the organisation of state public-health surveillance, general sanitary requirements, prevention of health risks and obligations of legal and natural persons to avoid activities that may adversely affect human health. The Law remains in force and its consolidated version includes amendments effective from 30 December 2025.	Fully applicable/ High relevance	Identify sensitive public-health receptors and assess Project-related health impacts; comply with applicable sanitary standards for noise, air, drinking water, sanitation and hazardous substances; protect sanitary-protection zones; incorporate public-health mitigation into the Technical Design and specifications; and transfer residual community-health requirements into the C-ESMP and Contractor's management plans
The Urbanism and Construction Code ²⁰ no. 434/2023	The Urbanism and Construction Code establishes the unified national legal framework governing territorial planning, design of construction works, authorization and execution of construction works, construction quality, construction materials and products, operation and post-use of structures, and state supervision in the construction sector.	Fully applicable/ High relevance	Prepare the Technical Design in accordance with applicable national construction norms and initial design documentation; integrate environmental, social, road-safety, accessibility, land and permitting requirements; undertake mandatory verification by certified Project Verifiers and technical expertise where applicable; resolve verification comments; obtain required construction authorisations; and ensure that only verified and authorised design documentation is issued for construction.

¹⁸ Source: https://www.legis.md/cautare/getResults?doc_id=139975&lang=ro#

¹⁹ Source: https://www.legis.md/cautare/getResults?doc_id=142435&lang=ro#

²⁰ Source: https://www.legis.md/cautare/getResults?doc_id=141587&lang=ro#

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Legal acts	General overview	Applicability and Relevance	How to comply during design stage
Law ²¹ on access to information #148/2023	Law establishes the legal framework governing the right of access to information of public interest, the obligations of information providers, the procedures for requesting and obtaining such information, and the mechanisms for ensuring transparency of activities carried out within the public sector.	Applicable Relevant	Maintain and organise Project information of public interest; ensure proactive publication where required; establish procedures for registering and responding to information requests within the statutory timeframe; disclose information in accessible formats; apply only legally justified restrictions and protect personal data; maintain records of requests and responses; and coordinate disclosure requirements with the EIA process, public consultation and the Project SEP/PR10 requirements.
Law ²² on Wastes #209/2016	Law establishes the national legal framework for the prevention, generation, collection, storage, transport, recovery, recycling, treatment and disposal of waste, with the objective of protecting the environment and human health.	Fully applicable/ High relevance	Identify and quantify expected waste streams; apply the waste hierarchy; maximise reuse, recycling and recovery of asphalt, concrete and suitable excavated materials; classify hazardous and non-hazardous waste; identify authorised operators and disposal/recovery facilities; establish segregation, temporary storage, traceability and reporting requirements; prohibit uncontrolled dumping or burning; and incorporate these requirements into the Technical Design, specifications, BOQ and Contractor's Construction Waste Management Plan.
Law ²³ on Industrial Emissions #227/2022	Law establishes the legal framework for preventing and controlling pollution generated by industrial and economic activities of the Contractor, including emissions to air, water and soil, generation of waste, environmental monitoring and application of Best Available Techniques (BAT).	Applicable Relevant	Identify all Project-related industrial installations and stationary emission sources; screen their activities and capacities against Law No. 227/2022; determine applicable Integrated Environmental Authorization, Environmental Authorization or registration requirements; incorporate BAT, emission-control, monitoring and pollution-prevention requirements into the design and procurement documents; avoid sensitive locations; and require the Contractor and material suppliers to operate only under valid environmental authorizations.
Law ²⁴ on occupational safety & health #186/2008	Law establishes the general national framework for ensuring the OHS of workers, including prevention of	Fully applicable/ High relevance	Apply the general OHS prevention principles during design; undertake a design-stage OHS risk assessment; appoint a Design-Stage Safety and

²¹ Source: https://www.legis.md/cautare/getResults?doc_id=137908&lang=ro

²² Source: https://www.legis.md/cautare/getResults?doc_id=143643&lang=ro#

²³ Source: https://www.legis.md/cautare/getResults?doc_id=133705&lang=ro

²⁴ Source: https://www.legis.md/cautare/getResults?doc_id=142433&lang=ro#

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Legal acts	General overview	Applicability and Relevance	How to comply during design stage
	occupational risks, protection of workers from accidents and occupational diseases, information and consultation of workers, training and allocation of responsibilities between employers and employees.		Health Coordinator where required; prepare the Site Safety and Health Plan, Coordination Register and File for Subsequent Works; eliminate/minimise foreseeable construction and maintenance hazards through design; document residual risks; and incorporate OHS requirements into the Technical Design, specifications and Contractor requirements.
Law ²⁵ on the protection of archaeological heritage No. 218/2010	Law establishes the legal framework for the identification, research, protection, conservation and safeguarding of archaeological heritage in the Republic of Moldova, including archaeological sites, remains and archaeological discoveries located above ground, underground or underwater.	Fully applicable/ High relevance	Screen the Project footprint for known and potential archaeological heritage; consult the National Archaeological Agency; undertake archaeological surveys/investigations where required; avoid archaeological sites through design where feasible; obtain the Archaeological Discharge Certificate before works where applicable; incorporate archaeological protection and monitoring requirements into the Technical Design; and establish a Chance Find Procedure requiring immediate work stoppage and notification of ANA within 24 hours
Applicable Social Laws			
Law ²⁶ on Social Inclusion of Persons with Disabilities #60/2012	Law establishes the legal framework for ensuring the social inclusion, equal participation and non-discrimination of persons with disabilities, including requirements related to accessibility of public infrastructure, transport and services. The Law remains in force.	Fully applicable/ High relevance	Identify infrastructure used by pedestrians and public transport passengers; incorporate barrier-free access, accessible kerbs/ramps, tactile and orientation measures, accessible crossings, bus stops, parking and pedestrian facilities; verify accessibility of the proposed underpass; consult relevant disability stakeholders where appropriate; ensure compliance with applicable accessibility norms through design verification; and maintain accessible temporary routes during construction.
Law ²⁷ Promotion of employment &	Law establishes the national framework for the promotion of employment, prevention and reduction of	Fully applicable/ High relevance	Assess Project workforce needs and local labour availability; engage with ANOFM and the Strășeni/Nisporeni Territorial Employment Offices; identify opportunities for local recruitment, vocational training and

²⁵ Source: https://www.legis.md/cautare/getResults?doc_id=143917&lang=ro#

²⁶ Source: https://www.legis.md/cautare/getResults?doc_id=139006&lang=ro#

²⁷ Source: https://www.legis.md/cautare/getResults?doc_id=139819&lang=ro#

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Legal acts	General overview	Applicability and Relevance	How to comply during design stage
unemployment insurance #105/2018	unemployment, labour-market services, active employment measures and unemployment insurance.		employment of eligible vulnerable jobseekers; incorporate transparent and non-discriminatory recruitment requirements into the Employer's Requirements and bidding documents; and require Contractor workforce monitoring and cooperation with employment services.
Law ²⁸ on Social Services #123/2010	Law establishes the legal framework for the organisation, provision and management of social services for persons and families experiencing situations of difficulty, with the objective of preventing and overcoming social exclusion, marginalisation and other forms of vulnerability.	Applicable Relevant	Identify vulnerable persons and relevant social-service providers within the Project area; assess potential impacts on access to social, health and community services; incorporate accessible and alternative access arrangements into the Technical Design; ensure inclusive stakeholder engagement and grievance procedures; coordinate with competent social-assistance authorities where required; and integrate vulnerability considerations into land acquisition, traffic management and construction-stage E&S requirements.
Law ²⁹ on ensuring equal opportunities between women and men # 5/2006	Law establishes the legal framework for ensuring equal rights, equal opportunities and equal treatment of women and men, with the objective of preventing and eliminating discrimination based on sex in employment, economic and social life and other areas.	Fully applicable/ High relevance	Incorporate equal-opportunity, equal-pay, non-discrimination and anti-harassment requirements into the Employer's Requirements and procurement documents; require gender-neutral recruitment and equal access to employment/training; establish confidential grievance and anti-retaliation arrangements; undertake gender-inclusive stakeholder engagement; assess gender-related mobility and safety impacts; and integrate appropriate gender-responsive measures into pedestrian, public transport and community-safety design.
Law ³⁰ on Freedom of Expression # 64/2010	Law establishes the legal framework for protecting the right to freedom of expression, including the right to communicate facts, opinions and value judgments, while providing safeguards for honour, dignity, professional reputation and private life.	Applicable Relevant	Ensure that stakeholders can freely express opinions, concerns and criticism regarding the Project; conduct consultation without improper interference or intimidation; maintain accessible grievance and communication channels; respect lawful media activity, privacy and reputation rights; apply restrictions only where legally justified and

²⁸ Source: https://www.legis.md/cautare/getResults?doc_id=141516&lang=ro#

²⁹ Source: https://www.legis.md/cautare/getResults?doc_id=144448&lang=ro#

³⁰ Source: https://www.legis.md/cautare/getResults?doc_id=141515&lang=ro#

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Legal acts	General overview	Applicability and Relevance	How to comply during design stage
			proportionate; and integrate these principles into the SEP, Project Grievance Mechanism and PR10 stakeholder engagement arrangements
Law ³¹ on Transparency in Decision Making # 239/2008	Law establishes requirements for ensuring transparency and public participation in decision-making processes conducted by central and local public authorities and other public authorities.	Applicable Relevant	Identify Project-related decisions subject to public consultation; disclose initiation notices, draft decisions and relevant supporting materials; provide stakeholders with at least the applicable statutory period for recommendations; undertake appropriate public consultation; record and assess comments; prepare and disclose the synthesis of recommendations and adopted decisions; incorporate accepted recommendations into the Technical Design where relevant; and coordinate the process with GD No. 967/2016, the EIA consultation procedure and the Project SEP/EBRD PR10
Administrative Code ³² of Republic of Moldova # 116/2018	The Administrative establishes the general legal framework governing administrative procedures, administrative acts, relationships between public authorities and individuals or legal entities, preliminary administrative remedies and administrative litigation.	Applicable Relevant	Identify and track all Project-related administrative procedures, permits and approvals; submit complete applications to the competent authorities; ensure participation/notification of affected parties where required; maintain records of administrative acts and statutory deadlines; incorporate all authority conditions into the Technical Design and contract documents; reassess material design changes against existing permits; and maintain access to applicable preliminary and judicial review procedures
Criminal Code no.985/2002	The Criminal Code establishes criminal liability for acts that seriously infringe legally protected interests, including human life and health, labour rights, property, the environment, public administration and the lawful functioning of public institutions.	Applicable Relevant	Ensure that the Technical Design and procurement documentation prevent conditions that could lead to criminal offences, including serious OHS violations, environmental pollution, unlawful forest or heritage damage, corruption, fraud and falsification of Project records; establish anti-corruption, Code of Conduct, reporting and accountability requirements; and require all Contractors and subcontractors to comply with applicable criminal law

³¹ Source: https://www.legis.md/cautare/getResults?doc_id=142655&lang=ro#

³² Source: https://www.legis.md/cautare/getResults?doc_id=144471&lang=ro#

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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.

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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

PR1 shall be applied as the overarching E&S assurance framework throughout the national design process to identify and assess E&S risks, verify legal and PR compliance, apply the mitigation hierarchy, review alternatives, integrate statutory approvals and stakeholder commitments into the Technical Design, control material design changes, document residual risks and transfer all outstanding E&S requirements into the procurement documents and Contractor's C-ESMP. PR1 supplements, but does not replace, national technical verification and statutory approval procedures.

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

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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 6-2: Relevant EBRD's PRs applicable for Lot no. 3 of the Moldova Road Project

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Standards	Requirements	Applicability and Relevance	How to comply
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.	Fully Applicable / High Relevance	PR1 provides the overarching framework under which the requirements of relevant PR2 - PR10 are identified, coordinated, implemented and monitored. The national EIA and technical design procedures constitute important elements of compliance but are not, by themselves, sufficient to demonstrate full compliance with PR1. The Project must maintain an integrated environmental and social management approach throughout design, procurement and construction, supported by the ESAP, Project-specific ES Plans, Contractor C-ESMP, stakeholder engagement, monitoring and corrective-action arrangements.
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.	Fully Applicable / High Relevance.	The national labour framework provides the statutory basis for employment and labour protection; however, additional Project-specific procedures are required to demonstrate full compliance with EBRD PR2, particularly regarding systematic contractor and subcontractor management, vulnerable workers, worker grievance arrangements, supply-chain labour risks, monitoring and reporting. PR2 requirements shall therefore be incorporated into the Design/Employer's Requirements, bidding documentation, construction contract, Labour and Working Conditions Plan, Contractor's C-ESMP and labour-monitoring arrangements.
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	Fully Applicable / High Relevance.	The Project has significant interfaces with resource consumption, construction and demolition waste, stormwater drainage, air emissions, noise and vibration, hazardous substances and risks of soil and water pollution. The national EIA, environmental legislation and Technical Design provide an important compliance basis; however, additional Project-specific measures are required to demonstrate full compliance with EBRD PR3, particularly regarding resource efficiency, material reuse and recovery, circular-economy principles, GHG assessment, application of GIP/BAT, waste traceability and systematic pollution prevention throughout the Project lifecycle.
PR 4 Health, Safety and Security	Standard sets out measures and responsibilities to protect direct & indirect workforce and OHS risks.	Fully Applicable / High Relevance.	The principal risks relate to occupational health and safety, construction in live traffic conditions, road and traffic safety, pedestrian and community safety, emergency preparedness and, where applicable, security arrangements. The national technical design, OHS and road-safety framework provides an important compliance basis; however, implementation of Project-specific measures is required to

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Standards	Requirements	Applicability and Relevance	How to comply
			demonstrate full compliance with EBRD PR4 throughout the design, construction and operational stages.
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.	Applicable / High Relevance	PR5 is applicable wherever the final Project footprint creates permanent or temporary land acquisition, restrictions on land use, loss of access or physical/economic displacement. The final level of impact for Lot No. 3 shall be established through a parcel-by-parcel cadastral and socioeconomic assessment based on the final Technical Design. PR5 requirements shall then be addressed through the applicable Resettlement/Land Acquisition instrument before the respective land is made available for construction.
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.	Fully Applicable/ High Relevance	PR6 is fully applicable and of high relevance because the road crosses the Codru and Codrii Strășenilor Emerald sites and State Forest Fund habitats. The Project shall apply the mitigation hierarchy from the design stage, prioritising avoidance and minimisation of additional habitat loss and fragmentation. The national Biodiversity Assessment provides an essential regulatory basis; however, the Project shall also demonstrate compliance with EBRD PR6 through identification of Priority Biodiversity Features and, where relevant, Critical Habitat, assessment of ecosystem services, incorporation of biodiversity mitigation into the Technical Design, and implementation of appropriate biodiversity management, restoration and monitoring measures.
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 V.	Not applicable
PR 8 Cultural Heritage	Standard sets out requirements for protection of the cultural heritage, etc.	Fully Applicable / High Relevance	PR8 is fully applicable because the rehabilitation involves significant excavation, earth movement, drainage and other physical changes that have the potential to affect known or previously unidentified cultural heritage. Compliance shall therefore be ensured through early cultural heritage screening, consultation with the competent Moldovan authorities, archaeological surveys and investigations where required, application of the mitigation hierarchy, archaeological

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Standards	Requirements	Applicability and Relevance	How to comply
			clearance before construction where applicable, and implementation of a Project-specific Chance Find Procedure.
PR 9 Financial Intermediaries	Standard sets out the requirements and processes for financial intermediaries of intermediated financing, etc.	Standard is not applicable for MRRP V.	Not applicable
PR 10 Information 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.	Fully Applicable / High Relevance	The Project shall maintain a systematic stakeholder engagement process throughout design, construction and operation, including stakeholder identification and analysis, implementation and updating of the Stakeholder Engagement Plan, timely disclosure of Project information, meaningful consultation, tailored engagement with vulnerable groups, implementation of an accessible Project Grievance Mechanism and ongoing monitoring and reporting. Stakeholder engagement shall be undertaken sufficiently early to allow relevant feedback to influence Project design and shall continue throughout construction, particularly in relation to land requirements, local access, traffic management, road safety, biodiversity, construction disturbance and other environmental and social impacts.

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6.2.3 Evaluation of compliance with applicable EBRD's PRs

Technical Design and execution details are subject to verification and/or technical expertise by certified Project Verifiers or certified Technical Experts, depending on the applicable procedure. The purpose of such verification/expertise is to ensure compliance of the design documentation with:

- applicable legislation;
- normative documents in construction; and
- the fundamental requirements for construction established by the Urbanism and Construction Code No. 434/2023.

Verification/expertise may be performed only by specialists certified in the relevant professional fields, and each specialist may verify only the areas for which he or she is certified.

Specific for road rehabilitation, the Designer developed the following technical documents:

- Road Engineering Report
- Bridges Engineering Report
- Road works
- Cross sections
- Culverts. Drainage of rainwater/
- Road marking and signing
- Bridges
- Overhead Power Cable Lines
- Road lighting
- Telecommunications cables
- External Water supply
- Organization of construction works (HS, Env. Fire and fighting, traffic, etc.)
- Materials for land allocation
- BoQs for road, bridges, utilities.

According to the legislation of the Republic of Moldova, certified Project Verifiers/Technical Experts verify the Technical Design and execution details only within their certified professional fields.

The Environmental Protection Section prepared under NCM A.07.06:2016 forms part of the design documentation and its technical solutions are subject to the applicable design-verification process. Standalone environmental, OHS, waste, land acquisition, archaeological and public-consultation documents are not generally subject to approval by the certified Project Verifier unless expressly required by the relevant sector-specific legislation; they are prepared, reviewed or authorised by the competent parties and authorities established under the applicable national legislation.

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Table 6-3: Identify gaps between national design legislation and PR 1 and relevant standards PR2 – PR10

PRs	Performance Requirements	PRs Objectives	National Design Process	Identified Gaps	Gap-Closure Actions
1	Assessment and Management of ES Risks and Impacts	- Identify and assess ES risks and impacts of the project; - Adopt a mitigation hierarchy approach to address ES risks and impacts from project activities on workers, affected communities, and the environment; - Develop an ESMS commensurate to the ES risks and impacts of the project in a manner consistent with the relevant PRs; and - Promote continuous improvement of the client's ES performance through the effective use of management systems.	The national framework requires: • preparation and verification of the Technical Design; • compliance with national construction norms; • Environmental Protection Section under NCM A.07.06:2016; • EIA and biodiversity assessment where applicable; • statutory environmental decisions and permits; • design-stage OHS measures; • technical verification by certified specialists.	The national framework does not establish one integrated E&S design-management system equivalent to PR1 covering all environmental and social topics throughout the Project life cycle. In particular, the national design process does not systematically require: • an integrated E&S Risk Register; • an EBRD PR applicability/compliance matrix; • formal application and documentation of the mitigation hierarchy across all E&S topics; • systematic E&S review of design alternatives; • integrated management of ES commitments; • E&S screening of material design changes; • formal tracking of residual E&S risks into procurement; • Project-wide E&S contractor-management requirements; • an E&S Design Close-Out process.	AND/PIU (overall responsibility) with Designer and qualified E&S specialists providing technical inputs shall establish a PR1 Design-Stage E&S Assurance Process including: • E&S Legal Register; • E&S Risk Register; • PR Compliance Matrix; • E&S Commitments Register; • Design Change Screening Procedure; • Residual Risk Register; • E&S requirements in specifications and BOQ; • E&S Design Compliance/ Close-Out Review.
2	Labour & Working Conditions	- respect and protect the fundamental principles and rights of workers; - ensure fair treatment, non-discrimination, and equal opportunities of workers in accordance with the decent work agenda;	Moldovan legislation regulates: - employment contracts; - working time & remuneration;	National labour legislation applies to employers and workers, but the Technical Design process itself does not normally require a Project-specific Labour and Working Conditions	AND & PIU include a Project-specific Labour and Working Conditions specification in the tender/contract requiring the Contractor to prepare and

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PRs	Performance Requirements	PRs Objectives	National Design Process	Identified Gaps	Gap-Closure Actions
		- establish, maintain and improve a sound worker management relationship; - ensure compliance with national labour and employment laws and any collective agreements to which the client is a party; - 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; - prevent the use of forced labour and child labour (as defined by the International Labour Organisation (ILO)); and - ensure that accessible and effective means to raise and address workplace concerns are available to workers.	- OHS; - equality & non-discrimination; - child and forced labour prohibition; - employment promotion; - employer/employee rights and obligations.	management framework to be developed before Contractor mobilisation. Additional PR2 issues include systematic requirements for: • Contractor and subcontractor labour management; • Worker grievance mechanism; • Workforce Code of Conduct; • Prevention of harassment and GBVH; • Management of migrant/temporary labour; • Worker accommodation, if required; • Supply-chain labour risks; • Systematic labour monitoring and reporting; • Incorporating labour requirements into procurement before Contractor selection.	implement appropriate labour and OHS procedures before mobilisation.
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; - avoid, minimise and manage project-related GHG emissions; - avoid, minimise and manage the risks and impacts associated with hazardous substances and materials, including pesticides; and	National legislation provides substantial controls through: • Env. Protection Law; • Water Law; • Waste Law; • Industrial Emissions Law; • EIA legislation; • environmental permits; • NCM A.07.06:2016 and these cover air, water, soil,	National legislation provides strong pollution-control compliance, but the design process does not necessarily require an integrated PR3 assessment covering: • systematic resource-efficiency assessment; • optimisation of energy & water consumption; • quantified material efficiency; • systematic reuse of pavement/excavated material; • alternatives based on lifecycle resource performance;	Prepare a PR3 Resource Efficiency & Pollution Prevention assessment and incorporate feasible measures into: • pavement/material design; • earthworks balance; • drainage; • Technical Specifications; • BOQ; • waste requirements;

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PRs	Performance Requirements	PRs Objectives	National Design Process	Identified Gaps	Gap-Closure Actions
		- identify, where feasible, project-related opportunities for resource efficiency improvements. - specific water use will be assessed; - operations will be benchmarked to available industry standards and GIP of water use efficiency; - opportunities for continuous improvement in terms of water use efficiency & recovery should be identified.	waste, hazardous substances and pollution prevention.	• greenhouse-gas assessment where applicable; • systematic application of GIIP beyond mandatory national limits; • climate/resource-performance monitoring indicators.	• Contractor pollution-control requirements.
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 - 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.	National legislation provides substantial OHS requirements through: Law No. 186/2008; Government Decision No. 80/2012; Design-stage OHS coordination; Site Safety and Health Plan; National road and construction safety standards; Public-health legislation.	The national framework addresses different safety issues through separate legal regimes, while PR4 requires an integrated assessment of: • occupational safety; • community health and safety; • road-user safety; • vulnerable road users; • emergency preparedness; • hazardous materials; • security personnel; • GBVH-related community risks; • interaction of construction activities with operational traffic. National technical verification alone does not demonstrate that all these PR4 risks have been assessed.	Undertake an integrated Health, Safety and Security Design Review, including: • Design-Stage OHS Risk Assessment; • Road Safety Audit/review; • community-health & safety assessment; • pedestrian and vulnerable-road-user assessment; • emergency-response requirements; • security-risk requirements, if applicable; • residual H&S risk register.
5	Land Acquisition, Restrictions on	- avoid involuntary resettlement or, when unavoidable, minimise involuntary	National legislation regulates: • public-utility declaration;	National expropriation legislation principally protects legally recognised property and compensation rights.	After the final design footprint is established:

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PRs	Performance Requirements	PRs Objectives	National Design Process	Identified Gaps	Gap-Closure Actions
	Land Use & Involuntary Resettlement	resettlement by exploring feasible alternative project designs and sites; - avoid forced eviction; - 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 req. of PR 10; - improve, or as a minimum restore the livelihoods and standards of living of affected persons compared to pre-displacement levels; and - 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.	• cadastral identification; • expropriation; • valuation; • compensation; • legal transfer of property; • administrative remedies. For M1, the statutory process is principally implemented by the GoM/MoIRD/AND under the applicable public-utility and expropriation legislation.	PR5 additionally requires systematic consideration of: • persons without formal legal title; • informal users; • economic displacement; • loss of access to livelihoods; • temporary restrictions on land use; • livelihood restoration; • vulnerable affected persons; • socioeconomic census and asset inventory; • replacement-cost methodology; • monitoring of livelihood restoration; • Project-specific grievance mechanism; • completion of required compensation/assistance before displacement. Therefore: National expropriation compliance ≠ automatic PR5 compliance.	• complete a PR5 gap assessment; • finalise affected-parcel inventory; • undertake census/socioeconomic survey; • identify economic displacement; • assess vulnerable persons; • prepare a Resettlement Plan/LARP & livelihood measures as applicable; • confirm compensation/assistance before land access. The EBRD Project Board documentation itself states that, following finalisation of the design, a Resettlement Plan is required, including further socioeconomic surveys and a full census of affected plots and businesses. GoM/MIDR/AND for statutory land acquisition; AND/PIU for ensuring additional PR5 requirements are addressed.
6	Biodiversity Conservation	- protect and conserve biodiversity using a precautionary approach;	The national framework includes:	For M1 Lot No. 3, this national framework provides a substantial level of biodiversity	AND/PIU shall undertake a PR6 supplementary biodiversity

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PRs	Performance Requirements	PRs Objectives	National Design Process	Identified Gaps	Gap-Closure Actions
	& 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; - maintain ecosystem services; and - promote good international practice in the sustainable management and use of living natural resources.	• protected-area legislation; • ecological-network legislation; • State Forest Fund controls; • EIA process and mandatory Biodiversity Assessment for activities potentially significantly affecting Emerald sites. The Environmental Agency performs the national Biodiversity Assessment procedure, and environmental legislation requires significant impacts on Emerald sites to be assessed.	protection, particularly because the road crosses Emerald Network areas. However, PR6 introduces additional concepts and assessment requirements that are not necessarily identical to the national procedure: • Priority Biodiversity Features (PBF); • Critical Habitat (CH); • ecosystem services; • biodiversity net-loss considerations; • no-net-loss objectives for PBF; • net-gain expectations in Critical Habitat where applicable; • specific residual-impact/offset hierarchy; • Project biodiversity monitoring based on measurable outcomes; • broader evaluation of habitat fragmentation and ecological connectivity.	assessment based on national biodiversity studies and determine whether PBF or Critical Habitat is present. Where required, prepare: Biodiversity Management Plan; Biodiversity Action Plan; habitat-restoration requirements; ecological-connectivity measures; monitoring indicators.
7	Cultural Heritage	- support the protection and conservation of cultural heritage; - adopt the mitigation hierarchy approach to protecting cultural heritage from adverse impacts arising from the project; - promote the equitable sharing of benefits from the use of cultural heritage in business activities; and	Moldovan legislation provides strong protection of archaeological heritage through: • archaeological screening & investigations; • archaeological discharge; • archaeological clearance;	The national archaeological process focuses particularly on tangible archaeological heritage. PR8 has a broader Project-level scope, including: • known and unknown tangible heritage; • intangible cultural heritage; • cultural significance to affected communities;	AND/PIU, with the National Archaeological Agency and other competent cultural authorities shall undertake statutory archaeological screening with a PR8 Cultural Heritage Screening, including consultation where communities identify cultural resources

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PRs	Performance Requirements	PRs Objectives	National Design Process	Identified Gaps	Gap-Closure Actions
		- 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.	• requirements for accidental archaeological discoveries; • National Archaeological Agency involvement. - National legislation establishes archaeological-discharge procedures where affected land contains archaeological heritage.	• stakeholder consultation regarding cultural heritage; • culturally important places that may not necessarily be formally registered; • consideration of cultural heritage within alternatives analysis; • specific management arrangements where heritage risks remain.	potentially affected by the Project. Include: • mapped heritage constraints; • archaeological clearance where required; • Chance Find Procedure; • Contractor cultural-heritage requirements.
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; - provide means for effective and inclusive engagement with project stakeholders throughout the project cycle; - 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 - ensure that complaints from stakeholders are responded to and managed appropriately.	Moldovan legislation establishes: • EIA consultation; • biodiversity consultation where applicable; • transparency in public decision-making; • access to information of public interest; • administrative participation; • rights of citizens to express concerns.	These national requirements are principally procedure-specific. They do not necessarily establish one continuous Project-level stakeholder-engagement system covering design, procurement and construction. PR10 additionally requires: • systematic stakeholder identification and analysis; • identification of vulnerable/disadvantaged groups; • a Project-specific Stakeholder Engagement Plan; • engagement beginning early enough to influence design; • continuous engagement throughout the Project; • accessible disclosure formats; • meaningful consultation; • Project-level external grievance mechanism;	AND/PIU shall implement the Project SEP and external Grievance Mechanism from the Design Stage supported by Designer and stakeholder/social specialists and establish the following process: Stakeholder issue → Design response → Decision → Disclosure tracking mechanism so that material stakeholder inputs can demonstrably influence the design where appropriate.

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PRs	Performance Requirements	PRs Objectives	National Design Process	Identified Gaps	Gap-Closure Actions
				- tracking of stakeholder commitments; - renewed engagement following material Project/design changes. This is a confirmed Project-specific issue: EBRD due diligence for Moldova Roads Rehabilitation V identified the need to improve engagement with affected persons and Local Public Authorities, with additional attention to road safety, bicycle infrastructure, informal businesses and accessibility, and required continuous consultation during Project development.	

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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 PR1 and relevant PR2 – PR10:

- Revised the technical design and ES and identify additional ES aspects and assessed risks, and establish mitigation measures to be included in the Project's specific ESMP.
- Revised the technical design and identify the labour and working conditions specific to site for Lot no. 3, assess the risks, and establish mitigation measures to be included in the Project's specific Labour Management Procedure.
- Revised the technical design and identify the health, safety and security, and labour and working conditions specific to site for Lot no. 3, assess the risks, and establish mitigation measures to be included in the Project's specific Health, Safety and Security Plan.
- Revised the technical design and 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;
- Revised the technical design and develop the specific ES Plans and procedures (code of Conduct, Participation and Consultation Procedure, Project's specific Complaint Mechanism;
- Revised the technical design and identify specific stakeholders and other interested parties and include in the Project's specific Stakeholder Engagement Plan to be used during construction and operational stages.

Draft Project-specific Environmental and Social Plans shall be disclosed on the Employer's/National Roads Administration (NRA) website and made available for public consultation for a minimum period of 30 calendar days.

Comments, recommendations and concerns received from stakeholders during the consultation period shall be reviewed, documented and addressed. Where relevant and technically justified, stakeholder feedback shall be incorporated into the revised draft/final versions of the respective Project-specific E&S Plans.

A Stakeholder Comments and Responses Register shall be maintained to demonstrate how comments received during consultation were considered and how they influenced the finalisation of the respective E&S Plans.

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7 THE ENVIRONMENTAL AND SOCIAL BASELINE

7.1 General data about existing situation on the express road M1 Lot no. 3

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 Bursuc area, approximately km 44+000

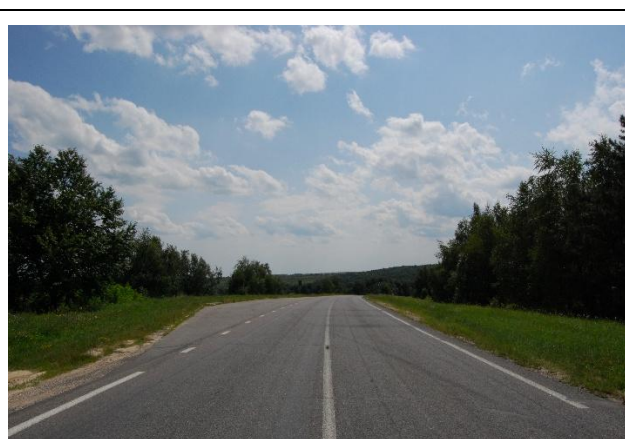


Fig. 7-2: Lozova junction area Lot no.3

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Fig. 7-3: The Lozova area, around **km 43**



Fig. 7-4: Bursuc area, approximately **km 44**

Specific for Lot No. 3 is intended to be rehabilitated and widened predominantly within the existing M1 road corridor and the land already registered as land associated with the public road, which for a national road is state public property administered through the National Roads Administration (AND).

In April - June 2022, the then State Road Administration launched and awarded contracts for complex cadastral works for the allocation and acquisition of public and private land required for rehabilitation of the M1 road. The contract with the Institute for Territorial Organisation Design was awarded on 7 June 2022. That cadastral contract was subsequently amended/extended, including into 2024 - 2026, which indicates that the land formalisation process was not simply a historical, fully closed exercise.

The cadastral³³ review indicates that all 11 parcels constituting the existing M1 road corridor within Lot No. 3 provide an available width of approximately 39 m or more. This is sufficient to accommodate the proposed three-lane road platform and shoulders within the existing registered road land. Consequently, no additional permanent land acquisition is anticipated for the general road widening, subject to final verification of localised works and ancillary infrastructure against the cadastral boundaries.

The rehabilitation of M1 Lot No. 3 is predominantly accommodated within the existing registered road corridor and State-owned public road land. The cadastral documentation indicates that a considerable part of the required cadastral works relates to the formation, delimitation or adjustment of existing public property rather than acquisition of additional private land. Only a limited number of privately-owned parcels are affected by the rehabilitation works, mainly at localised locations where the permanent Project footprint extends beyond the existing road-land boundary. Consequently, land acquisition impacts for Lot No. 3 are considered localised and limited rather than continuous along the 22.75 km road section.

³³ Source: https://geodata.gov.md/_v/2026090912/#/viewer/openlayers/99

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All privately owned parcels affected by the final Project footprint shall be included in the Project-specific RAP, based on the final cadastral and socioeconomic assessment, with compensation and other applicable assistance completed before the affected land is made available for construction

7.2 Equipping and upgrading the road under existing conditions

The existing road is a strategic national and international transport corridor that currently accommodates through traffic together with local access to settlements, agricultural land, forest areas, public transport stops and connecting local roads. The existing pavement is generally characterised by an ageing semi-rigid structure, local cracking, rutting, settlements, patched areas and deterioration of shoulders and drainage elements.

The proposed upgrading under the existing site conditions includes, as applicable:

- rehabilitation and strengthening of the existing pavement structure, including replacement or treatment of deteriorated pavement layers;
- upgrading of the road to the proposed Technical Category III standard;
- provision of a three-lane carriageway configuration, with lane widths of approximately 3.50 m;
- reconstruction and strengthening of road shoulders, generally approximately 2.0 m wide, subject to the final cross-section;
- local correction of horizontal and vertical road geometry while maintaining the existing alignment as far as technically practicable;
- reconstruction and upgrading of the principal junctions at: R10; L395 – Bursuc; L420 – Lozova; G98; Stejăreni access; and G97 – Căpriana/Pănășești;
- upgrading of minor intersections and local accesses;
- rehabilitation, extension and replacement of culverts and roadside drainage structures;
- improvement of surface-water collection and discharge arrangements;
- installation or upgrading of road signs, road markings, delineators, safety barriers and other traffic-safety equipment;
- rehabilitation or provision of bus stops, passenger waiting areas and shelters;
- provision or improvement of pedestrian facilities, including sidewalks, crossings and the proposed pedestrian underpass;
- improvement of access arrangements for local communities and roadside properties;
- utility protection, relocation or adjustment where required;
- reinstatement and landscaping of disturbed roadside areas; and
- installation of road-safety measures appropriate to the operational speed and roadside conditions.

Particular design attention is required in sections passing through or adjacent to forest areas, Emerald Network sites and State Forest Fund land, where widening, drainage works, vegetation removal and temporary construction activities should be minimised and carefully controlled.

The upgrading is intended to utilise the existing road land and existing transport corridor to the maximum extent feasible. Where the final design remains within the registered road parcel, no

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additional permanent land acquisition would be required. Any local extension beyond the existing cadastral road boundary, including at junctions, embankment slopes, drainage structures or ancillary facilities, should be confirmed through the final cadastral overlay and addressed through the applicable land procedures.

7.2 Climate

7.2.1 The climatic zone

According to the World Bank Climate Change Knowledge Portal, the Nisporeni and Strășeni Districts are located within the temperate–continental climatic region of central Moldova, characterised by marked seasonal temperature variation, warm summers, cold winters and precipitation concentrated predominantly during the warmer part of the year. Under the Köppen–Geiger climatic classification used by the CCKP, the central part of Moldova is predominantly associated with the humid continental climatic regime, with local transition between climatic subclasses depending on elevation and temperature conditions.

From an engineering-design perspective, Lot No. 3 is located within Road Climatic Zone III according to NCM D.02.01:2015. From a broader climatological perspective, World Bank CCKP data characterise the Nisporeni and Strășeni area as part of Moldova's temperate continental climatic region, with pronounced seasonal temperature variability and a humid-continental climatic influence

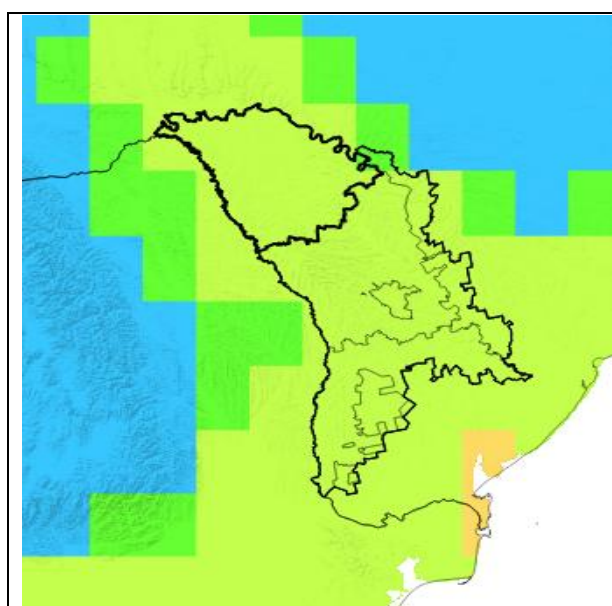


Fig. 7-3: The climate zone³⁴ in the Republic of Moldova (Cfa)



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

³⁴ Source: <https://climateknowledgeportal.worldbank.org/country/moldova>

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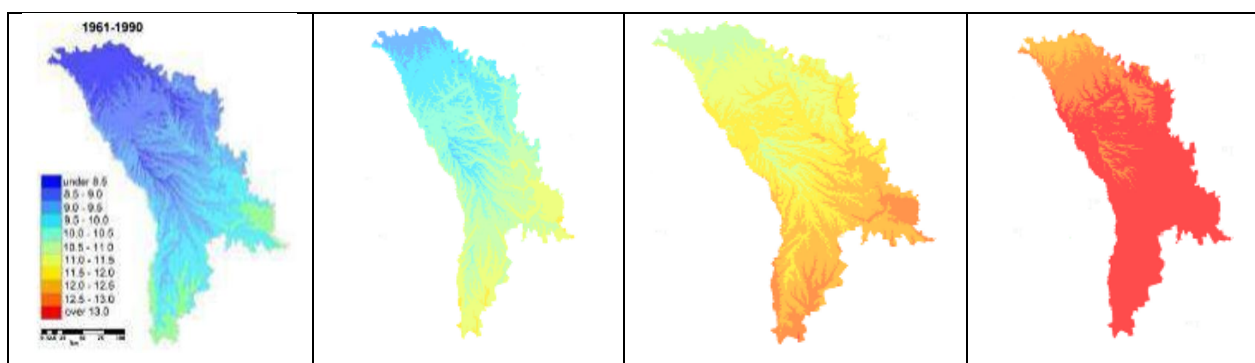
Nisporeni and Strășeni Districts are located within the Central Agro-Ecological/Agro-Climatic Zone II of the Republic of Moldova. A substantial part of the M1 Lot No. 3 corridor is situated within the Codrii sub-zone (IIa), characterised by hilly and strongly dissected relief, grey and brown forest soils, moderate annual precipitation and a comparatively humid climatic regime relative to the southern part of the country.

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 Nisporeni and Straseni 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 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.



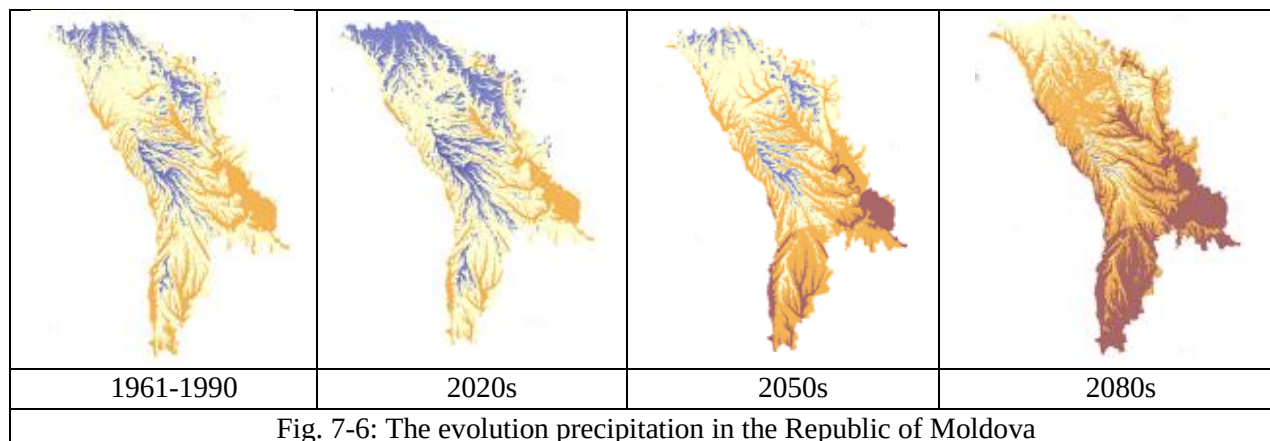
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1961-1990	2020s	2050s	2080s
Fig. 7-5: The evolution of the air temperature in Republic of Moldova			

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.



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

The National Climate Change Adaptation Programme until 2030, approved by Government Decision No. 624/2023, identifies the transport sector as vulnerable to increasing temperatures, heat waves, changes in precipitation and extreme weather events. It specifically notes risks of pavement deformation during prolonged heat and damage to transport infrastructure from intense precipitation and flooding.

For Lot No. 3, the principal climate-related risks and corresponding adaptation measures include:

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Climate-related risk	Potential impact on Lot No. 3	Recommended design adaptation
Higher average and maximum temperatures / heat waves	Asphalt softening, rutting, bleeding, accelerated ageing and reduced pavement life	Select heat- and rut-resistant pavement materials; verify binder/mixture performance for higher future temperatures; consider higher design-temperature thresholds
More intense rainfall events	Local flooding, overtopping, erosion, pavement saturation and damage to embankments	Review culvert and drainage capacity against extreme rainfall; increase hydraulic capacity where necessary; provide reliable stormwater collection and discharge
Surface runoff and erosion	Scouring of slopes, shoulders and drainage outlets; sediment transport	Stabilise slopes and outlets; provide erosion protection, energy dissipation, vegetation/revegetation and sediment-control measures
Water infiltration into pavement/subgrade	Loss of bearing capacity, deformation, cracking and premature pavement deterioration	Improve pavement sealing, longitudinal/transverse drainage and subgrade moisture protection
Slope instability following intense rainfall	Local slips, erosion or instability of embankments/cuttings	Assess slope geometry and drainage; stabilise vulnerable slopes; control concentrated runoff
Prolonged dry periods and drought	Drying/shrinkage of soils, vegetation stress and increased dust/fire susceptibility	Consider moisture-sensitive soils, drought-resistant vegetation and appropriate maintenance/revegetation measures
Freeze–thaw variability	Pavement cracking, loss of subgrade strength and degradation of shoulders	Maintain adequate frost-resistant pavement/subgrade design and effective drainage in accordance with the applicable road climatic zone
Extreme storms and strong winds	Damage to signs, roadside structures, vegetation and temporary works	Design roadside equipment and structures for applicable wind loads; maintain safe clear zones and vegetation management
Climate-related forest fire risk	Increased risk in the Codrii forest/Emerald sections	Control ignition sources, access for emergency response and vegetation management during construction and operation

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 (Nisporeni and Strasenii Districts) during the year 2025³⁵.

³⁵ Source: [Temperatura medie a aerului pe Luni, Statia meteorologica si Ani. PxWeb](#)

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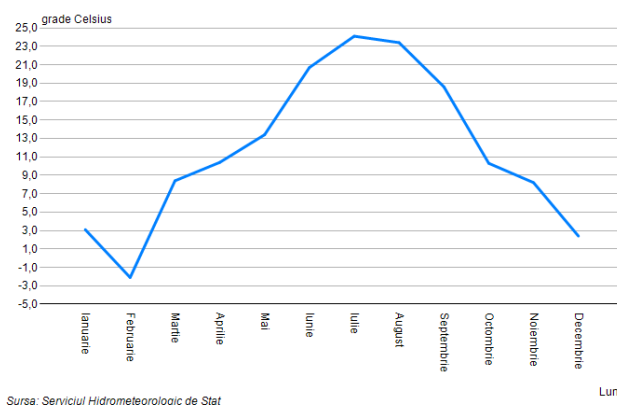


Figure 7-7: The temperature (°C) in the Nisporeni and Strasenii Districts (Chisinau), year 2025

The lowest air temperature of 0 °C was in February 2025 and the highest of 26.6 °C was measured in July 2025.

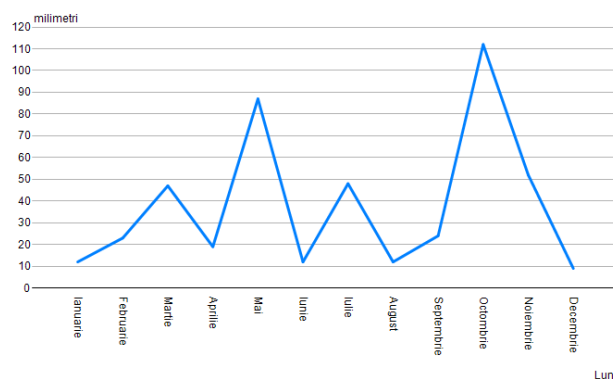
The average annual air temperature in the Nisporeni and Strasenii Districts (Chisinau) for 2025 was 11.7 °C, but for the last 5 years (2021 – 2025) fluctuations of the temperature were as follows:

	Chisinau				
	2021	2022	2023	2024	2025
Media anuala	10,6	11,7	12,7	13,0	11,7

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 Falești).

7.2.4 Precipitation

The Nisporeni and Strasenii 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.



Sursa: Serviciul Hidrometeorologic de Stat

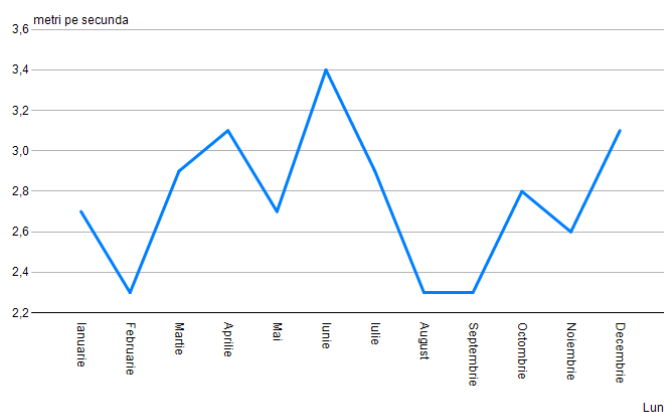
Figure 7-8: The precipitation³⁶ in the Nisporeni & Strasenii Districts (Chisinau), the year 2025

In 2025, the average annual precipitation in the Nisporeni and Strasenii Districts was 457 mm. However, over the last five years (2021–2025), precipitation levels have shown some fluctuation, as outlined below:

	Chisinau				
	2021	2022	2023	2024	2025
Cantitatea anuala	666	444	430	715	457

7.2.5 Wind regime and speed

The wind regime³⁷ 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 (March, April, June, October and December) and the lowest is specific for February, August and September 2025.



Sursa: Serviciul Hidrometeorologic de Stat

Figure 7-9: The wind speed in the Nisporeni & Strasenii Districts during the year 2025

³⁶ Source: National Bureau of Statistic - [Cantitatea de precipitatii pe Luni. Chisinau, 2025.. PxWeb](#)

³⁷ Source: [Viteza medie a vintului pe Luni. Chisinau, 2025.. PxWeb](#)

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In the year 2025, the average annual wind speed in the Nisporeni and Strasenii Districts was 2.8 m/s, but for the last 5 years (2021 – 2025) fluctuates of wind speed were as follow:

	Chisinau				
	2021	2022	2023	2024	2025
Media anuala	2,9	2,9	3,0	2,7	2,8

7.3 Air Quality

7.3.1 Air quality in the Nisporeni and Strasenii Districts

The quality of the air in the Nisporeni and Strasenii 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 Statistics³⁸ and the results of measurement are presented in the table below.

The air pollution with Particular Matters³⁹ (PM) in the Nisporeni and Strasenii Districts is presented in the table below.

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

	2017	2018	2019	2020	2021
	Solide	Solide	Solide	Solide	Solide
..Strasenii	130	85	66	63	61

³⁸ Source: [Emisiile de substante poluante in aerul atmosferic de la sursele stationare ale agentilor economici pe ingrediente pe Raioane/Regiuni, Ani si Ingrediente. PxWeb](#)

³⁹ Source: [Emisiile de substante poluante in aerul atmosferic de la sursele stationare ale agentilor economici pe ingrediente pe Raioane/Regiuni, Ani si Ingrediente. PxWeb](#)

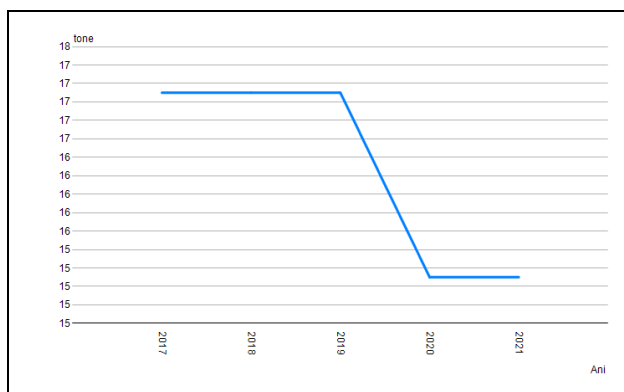


Figure 7-10: The air pollution in the Nisporeni District with particular matters (solids) during years 2017 - 2021

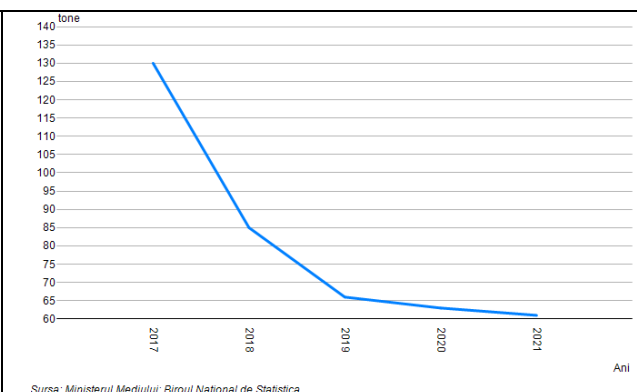


Figure 7-11: The air pollution in the Straseni District with particular matters (solids) during years 2017 - 2021

The air pollution with Sulphur⁴⁰ dioxide (SO₂) 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
..Nisporeni	1	1	1	1	2

	2017	2018	2019	2020	2021
	..dioxid de sulf	..dioxid de sulf	..dioxid de sulf	..dioxid de sulf	..dioxid de sulf
..Straseni	32	30	16	15	14

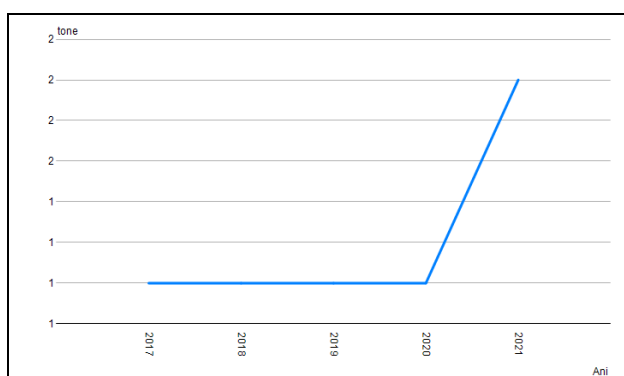


Figure 7-12: The air pollution with Sulphur Dioxide (SO₂) in the Nisporeni District during years 2017 - 2021

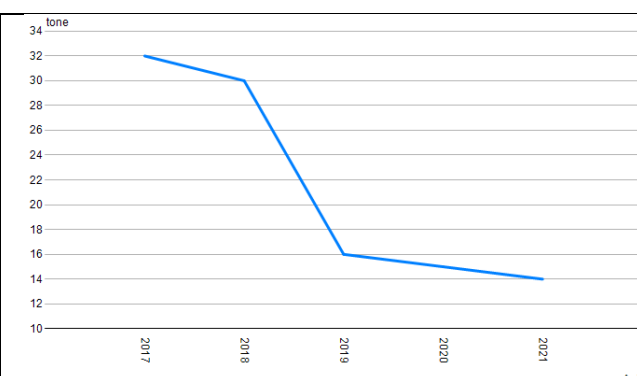


Figure 7-13: The air pollution with Sulphur Dioxide (SO₂) in the Straseni District during years 2017 - 2021

⁴⁰ Source: [Emisiile de substante poluante in aerul atmosferic de la sursele stationare ale agentilor economici pe ingrediente pe Raioane/Regiuni, Ani și Ingrediente. PxWeb](#)

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The air pollution with Carbon⁴¹ Oxide (CO) in the Nisporeni & Straseni 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
..Nisporeni	28	26	29	27	27

	2017	2018	2019	2020	2021
	..oxid de carbon	..oxid de carbon	..oxid de carbon	..oxid de carbon	..oxid de carbon
..Straseni	94	77	65	73	70

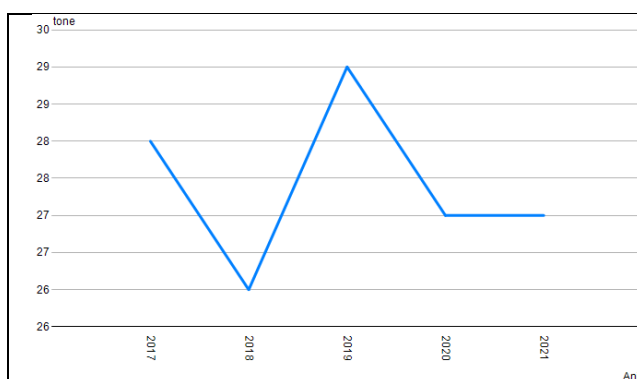


Figure 7-14: The air pollution with Carbon Oxide (CO) in the Nisporeni District during years 2017 - 2021

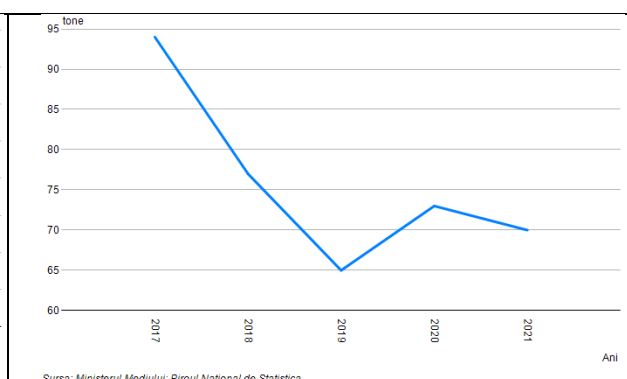


Figure 7-15: The air pollution with Carbon Oxide (CO) in the Straseni District during years 2017 - 2021

The air pollution with Nitrogen⁴² Oxide (NOx) in the Nisporeni & Straseni 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
..Nisporeni	4	4	4	4	3

	2017	2018	2019	2020	2021
	..oxid de azot	..oxid de azot	..oxid de azot	..oxid de azot	..oxid de azot
..Straseni	9	9	8	9	7

⁴¹ Source: [Emisiile de substante poluante in aerul atmosferic de la sursele stationare ale agentilor economici pe ingrediente pe Raiioane/Regiuni, Ani și Ingrediente. PxWeb](#)

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

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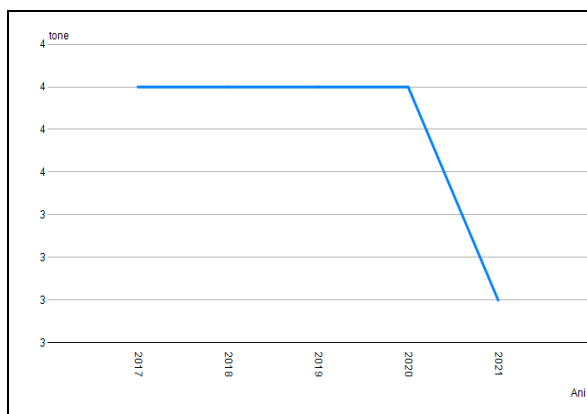


Figure 7-16: The air pollution with Nitrogen Oxide (NOx) in the Nisporeni District during years 2017 - 2021

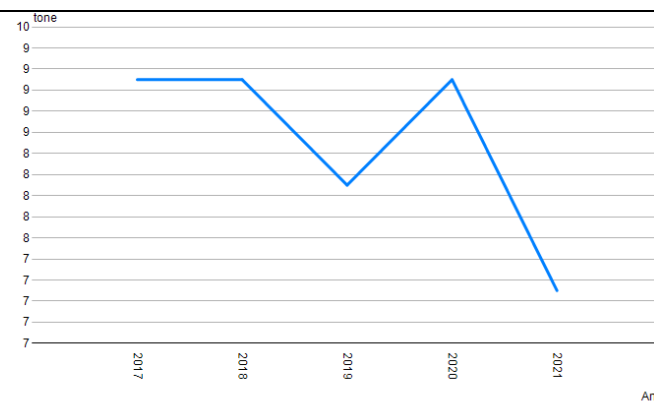


Figure 7-17: The air pollution with Nitrogen Oxide (NOx) in the Straseni District during years 2017 - 2021

Also, the European Space Agency (ESA)⁴³ 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 (O₃), nitrogen dioxide (NO₂), carbon dioxide of sulphur (SO₂), suspended dust (PM₁₀ 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 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;

⁴³ Source: <https://maps.s5p-pal.com/>

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- 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 Organization⁴⁴ (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

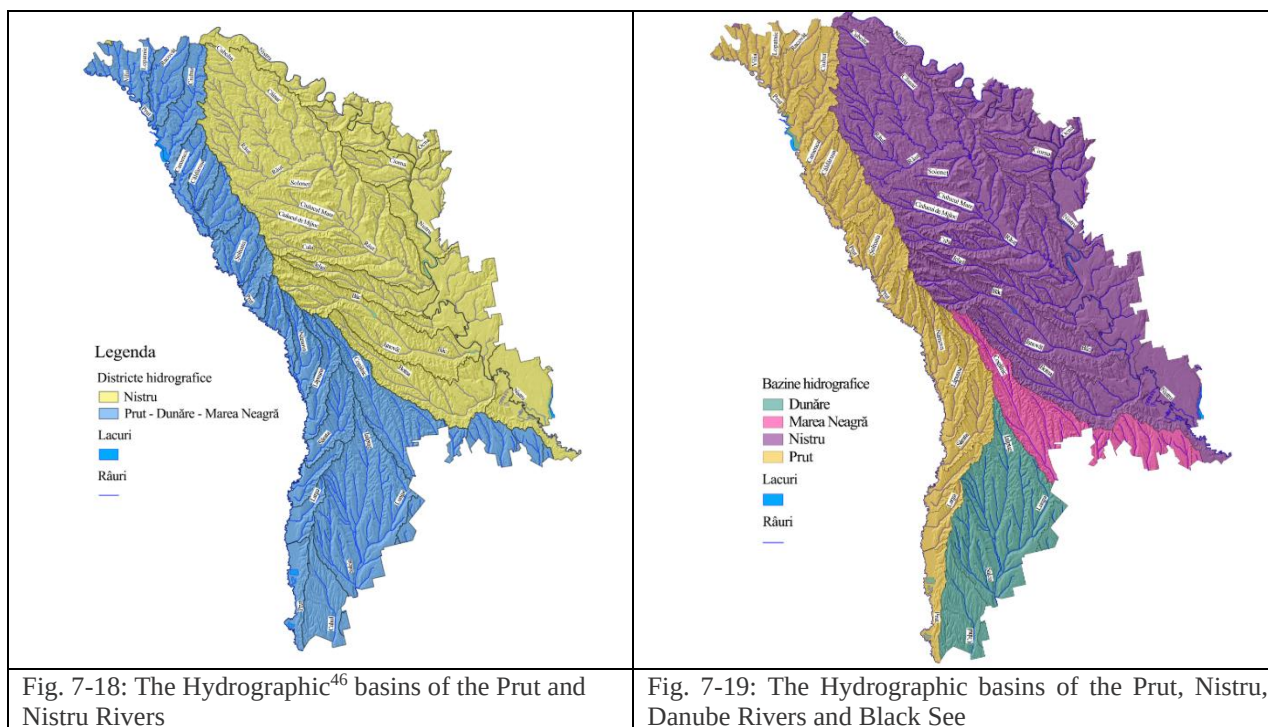
7.4.1 The Danube-Prut-Black Sea Hydrographic District

The total area of the Danube-Prut⁴⁵ and Black Sea hydrographic district basin (DPBSHDB) is 14770 km² 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 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.

⁴⁴ Source: https://www.who.int/europe/health-topics/noise#tab=tab_1

⁴⁵ 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.>

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Nisporeni District is situated across the watershed divide between the Prut River Basin and the Dniester River Basin. Part of the district drains toward the Prut River and belongs to the Danube–Prut–Black Sea Hydrographic District, while the remaining part drains toward the Dniester River system.

The Strășeni District is situated across the watershed divide between the Dniester Hydrographic District and the Danube–Prut–Black Sea Hydrographic District. The eastern and central parts of the district, including the Bîc River catchment and the Strășeni–Ghidighici area, drain toward the Dniester system, while western parts of the district drain toward the Prut system and therefore belong to the Danube–Prut–Black Sea Hydrographic District

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 km².

7.4.2 The Cogalnic River Basin

The Cogâlnic River Basin is an important transboundary hydrological unit extending from the central and southern parts of the Republic of Moldova toward southern Ukraine. The Cogâlnic River originates in the Central Moldavian Plateau/Codrii area, generally flows in a north-west to south -

⁴⁶ Source: https://www.environment.md/ro/managementul_resurselor_de_apă

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east direction, crosses the territory of the Republic of Moldova and continues into Odesa Region, Ukraine, where it discharges into Lake/Liman Sasyk, connected to the Black Sea system.

Within the Republic of Moldova, the basin mainly covers areas of Hîncești, Cimișlia and Basarabeasca Districts, with smaller parts extending into Nisporeni and Strășeni Districts. In its upper part, which is relevant to the Codrii area and the western section of **M1 Lot No. 3**, the terrain is hilly and strongly dissected, favouring the development of secondary valleys, gullies and temporary runoff channels.

The hydrological regime of the Cogâlnic River is characterised by a low mean flow and pronounced seasonal variability. The upper basin is typically affected by spring high-water conditions, short-duration pluvial floods generated by intense rainfall, and pronounced low-flow periods during the warm season. In dry years, some sections may experience very low discharge or temporary drying, while heavy rainfall can cause rapid increases in runoff and local flooding.



Figure 7-20: The hydrographic basin of the Cogalnic⁴⁷ River

⁴⁷ Source: <https://ecoexpert.md/project/master-plan-privind-alimentarea-cu-apa-si-sanitatie-pentru-bazinul-raului-narova/>

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The water quality of the Cogâlnic River is generally under significant pressure from organic pollution, nutrients and diffuse agricultural runoff, with marked spatial and seasonal variability. Historically, the river has been classified among Moldova's more polluted small rivers. For 2013–2015, official monitoring classified the Cogâlnic as Class IV (polluted) overall, with the Hîncești section reaching Class V (very polluted) in 2015. The parameters responsible included COD, BOD₅, ammonium nitrogen, nitrites, mineral and total phosphorus, mineralisation, hardness, iron and major ions.

More recent monitoring by the Environmental Agency confirms that water quality remains variable. In April 2024, dissolved oxygen in the Cogâlnic upstream of Hîncești was reported at 4.4 mg O₂/l, while CODCr was approximately 21.7 mg O₂/l at Hîncești and 48.1 mg O₂/l upstream of Cimișlia, indicating appreciable organic loading. In October 2025, CODCr values were about 26 mg O₂/l at Hîncești and 39 mg O₂/l at Cimișlia; at Cimișlia, nitrate nitrogen reached approximately 8.08 mg N/l and mineral phosphorus approximately 0.52 mg PO₄/l.

7.4.3 The Hydrographic Basin of the River Bic

The Bîc River Basin forms part of the Nistru Hydrographic District. The Bîc is a right-bank tributary of the Nistru River, originating in the Codrii area near Temeleuți village, Călărași District, and discharging into the Nistru near Gura Bîcului. The river is approximately 155 km long, with a catchment area of about 2,040 km².

The upper and middle basin crosses the central part of Moldova, including Călărași and Strășeni Districts, before continuing through Chișinău and toward Anenii Noi. In the Strășeni area, the river channel is strongly meandering, and the basin is characterised by hilly terrain, valleys and tributary networks typical of the Codrii landscape.

Important tributaries of the Bîc include the Bucovăț and Ișnovăț rivers, together with numerous smaller streams, ravines and springs. The Ișnovăț River is a right-bank tributary of the Bîc, approximately 59 km long, with a basin area of about 371 km².

The hydrological characteristics of the Bîc include relatively low normal flows, shallow channel depths in many sections and strong seasonal variability. Published basin information indicates typical river widths of around 8 - 12 m, depths commonly around 0.1–0.2 m, locally reaching approximately 0.8–1.0 m, and flow velocities of about 0.1–0.2 m/s.

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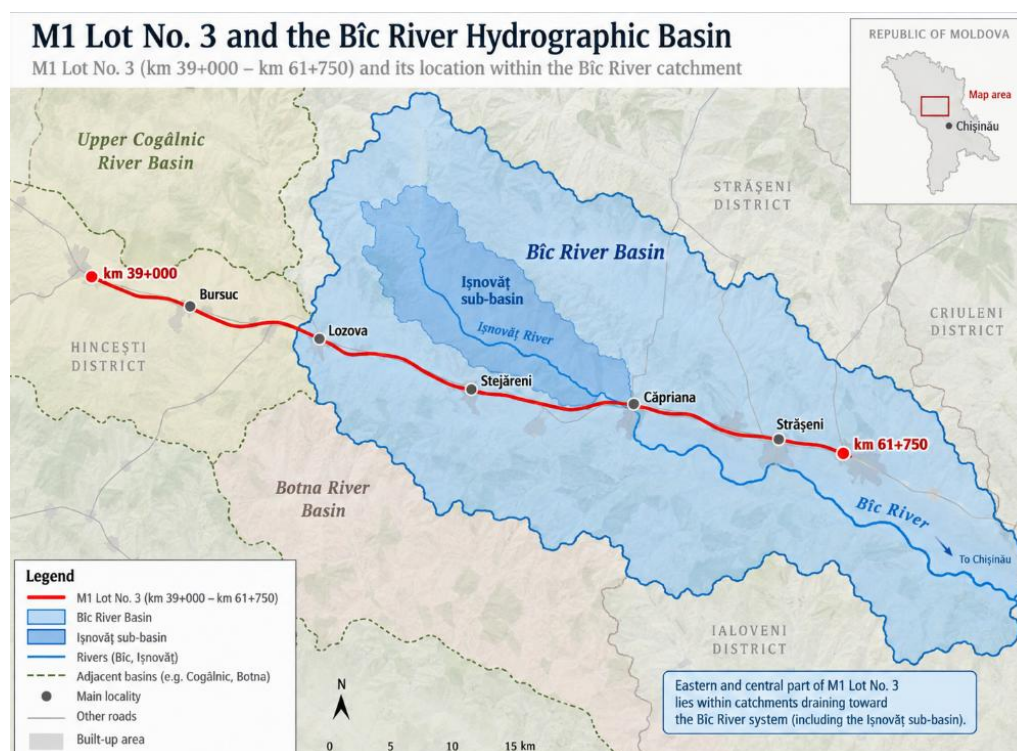


Fig. 7-21: The Hydrographic Basin of the River Bac and Isnovat Sub-basin

The eastern part of M1 Lot No. 3, particularly the Codrii - Căpriană/Strășeni area, lies within or close to catchments draining toward the Bîc system, including the Ișnovăț sub-basin. The road does not necessarily cross the main Bîc channel within Lot No. 3; rather, its interaction is primarily through small tributaries, ephemeral channels, roadside drainage and local catchments ultimately connected to the Bîc system.

7.4.4 The underground water resources

7.4.4.1 Aquifer complex of the Cogalnic River Basin

Hydro-geologically, the basin is supported by a sequence of distinct regional aquifer complexes and horizons that span from shallow unconfined layers to deep, highly pressurized artesian systems:

1. Holocenic Alluvial – Deluvial Aquifer Complex (aA₃)

- Lithology - consists mostly of alluvial sands and gravel inclusions and typically runs 20 to 30 meters thick.
- Yield & Use - exhibits a low well flow of roughly 1 - 2 L/s. This represents the shallow, unconfined water table tapped by traditional rural "mine wells."
- Status: This layer is highly vulnerable to anthropogenic surface pollution, displaying elevated nitrate and microbiological non-compliance across the country.

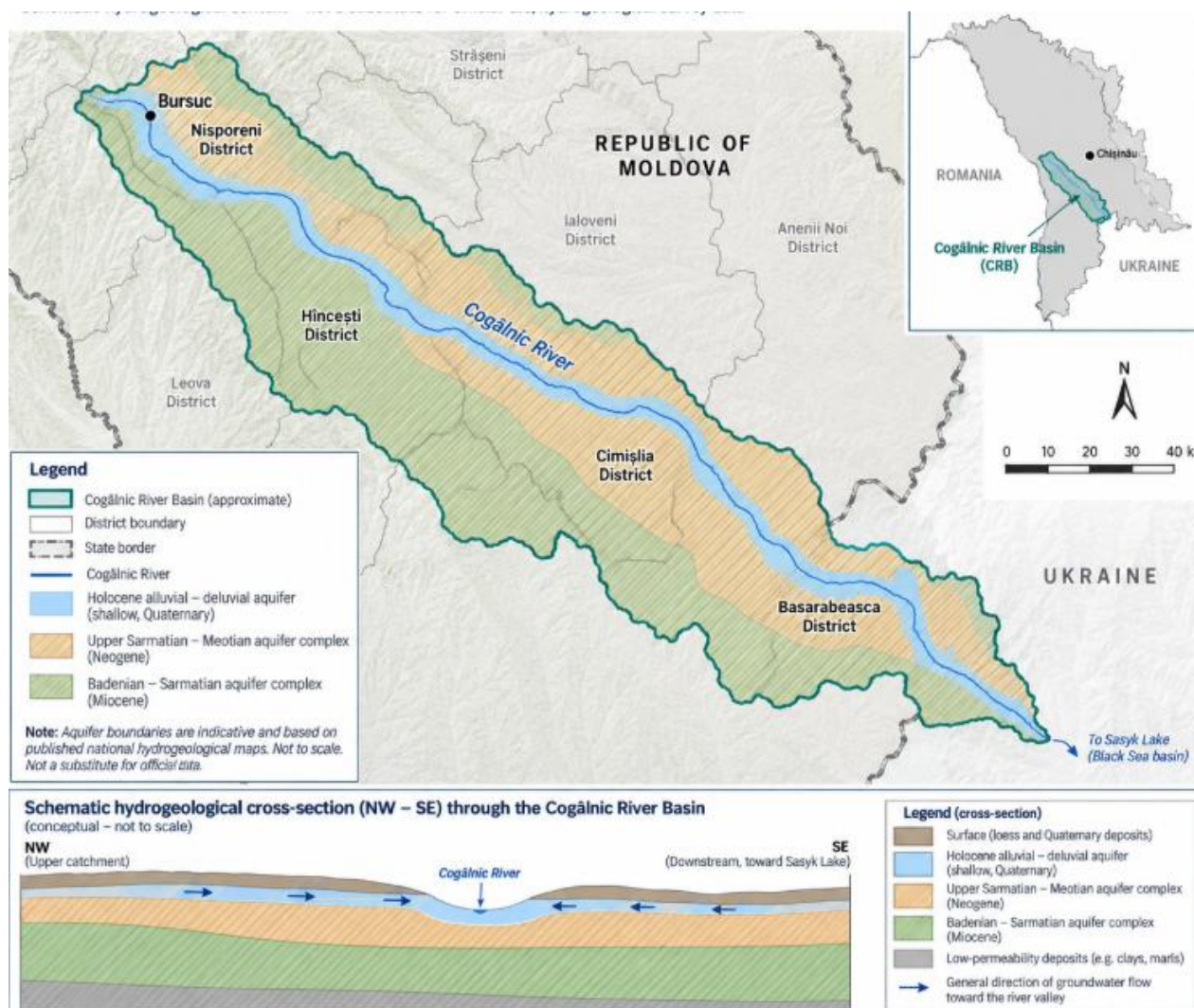


Figure 7-22: The Holocenic Aquifer Complex (aA₃) of the HB of the River Cogălnic

The Alluvial – Deluvial (aA₃) aquifer horizon 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 degradation. The water from the aA₃ aquifer is primarily used for domestic water supply via small-diameter wells.

The Upper Sarmatian - Meotian Aquifer Complex (N₁S₃-m)

The Upper Sarmatian - Meotian Aquifer Complex (N₁S₃-m) frequently referred to as the Upper Sarmatian - Meotian (or historically misspelled as Meituan in automated translations), is a critical hydrogeological unit in Eastern Europe, particularly across Moldova and southwestern Ukraine.

Its primary lithological, structural, and hydrodynamic characteristics include:

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1. Lithological Composition

The aquifer complex is predominantly unconfined or semi-confined depending on the overlying strata, primarily composed of fine-grained sands and siltstone. Frequent intercalations of clays, which segment the complex into a series of interconnected water-bearing layers and local aquitards.

2. Thickness and Depth

The thickness of the aquifer rocks ranges drastically from a thin 20.0 meters up to 300 meters, reaching its maximum thickness toward the southern regions. Because it tracks the regional geological dip, its depth increases significantly toward the southwest, mirroring trends seen in neighboring Neogene strata.

3. Hydrodynamic Regimes & Vulnerability

In regions with high industrial or agricultural extraction, the complex exhibits a noticeable decrease in piezometric levels. Studies tracking production wells show a general lowering of water levels by up to 20 meters, with pronounced regional cones of depression dropping levels by 25 to 30 meters. It experiences vertical hydraulic connectivity, frequently being recharged by downward percolation or the flow of fresher waters from overlying shallow units.

4. Hydro - chemical Profile

While hydro -chemical variations exist by micro-region, the upper sub-stages of the Sarmatian generally yield fresher water qualities than deeper, highly mineralized Middle Sarmatian layers. However, across its regional spread, it is prone to variable concentrations of sulfates (SO_4^{2-}), bicarbonates (HCO_3^-), and magnesium (Mg^{2+}), leading to high mineral hardness in localized extraction pockets.

7.4.4.2 Aquifer complex of the Bac River Basin and Isnovat River Sub-basin

For aquifer complex of the Bac River basin and Isnovat River Sub-basin is specific the Alluvial – Deluvial (aA₃) aquifer horizon which 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 degradation. The water from the aA₃ aquifer is primarily used for domestic water supply via small-diameter wells.

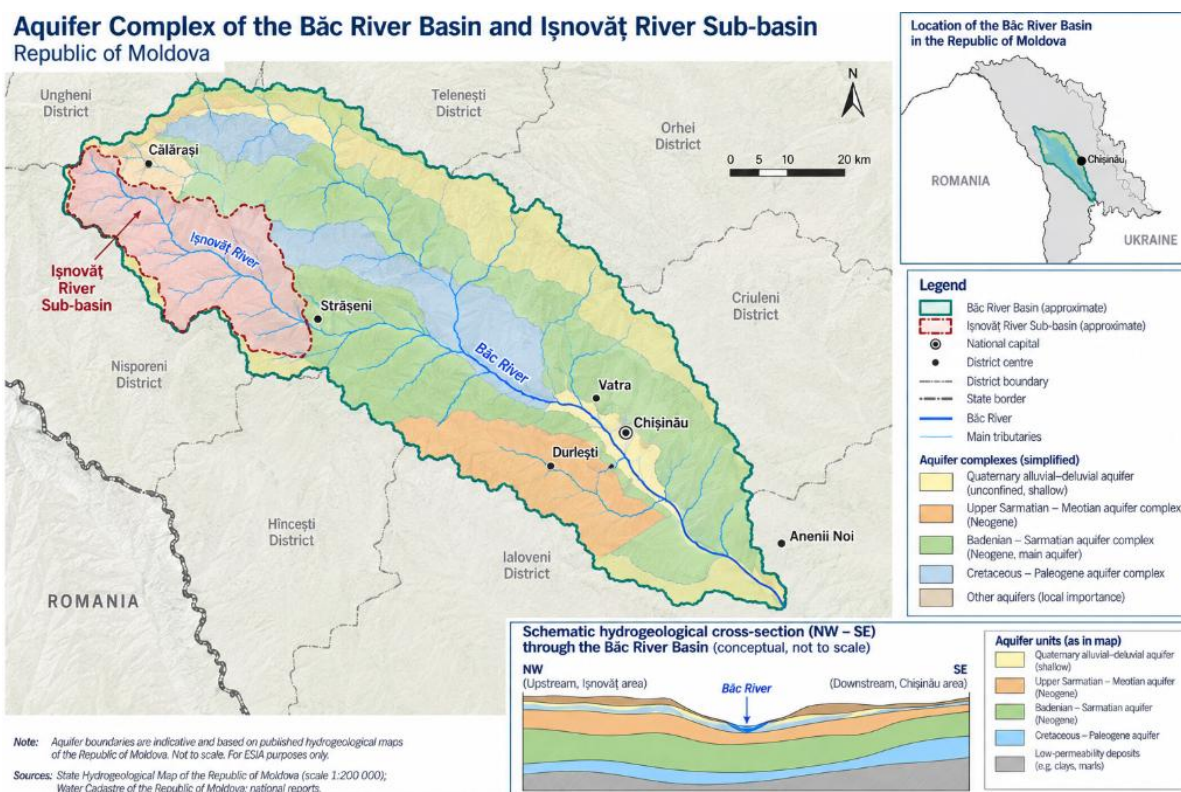


Figure 7-23: The Holocene Aquifer Complex (aA₃) of the HB of the River Bac

The Upper Sarmatian - Meotian Aquifer Complex (N₁S₃-m)

The Upper Sarmatian - Meotian Aquifer Complex (N₁S₃-m) frequently referred to as the Upper Sarmatian - Meotian (or historically misspelled as Meituan in automated translations), is a critical hydrogeological unit in Eastern Europe, particularly across Moldova and southwestern Ukraine.

The Badenian-Sarmatian Aquifer Complex (N₁b-s) (sometimes indexed as N₁b-s₁) is a regionally continuous, highly productive hydrogeological unit spanning Eastern Europe, most notably defining the deep groundwater profile of Moldova and western Ukraine. Because it lies underneath the shallower N₁S₃-m and Middle Sarmatian complexes, it represents a deeper, highly protected aquifer system with distinct structural and lithological traits.

1. Lithological Composition

Unlike the sand-and-clay dominated shallow systems, the N₁b-s complex is predominantly characterized by robust carbonate formations: (i) Reef Limestones - The framework consists largely of bioclastic and reef limestones (associated with the ancient Paratethys sea and features like the Medobory reef complex) and (ii) Marls and Sands - The limestone beds feature frequent intercalations of marls, calcareous clays, and quartz-carbonate sands, which modulate local permeability.

2. Thickness and Spatial Distribution

The complex is developed almost everywhere across its regional geographic domain. In typical areas, the thickness ranges from 30 to 50 meters. However, structural faults, depressions, and ancient

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reef configurations cause it to expand drastically in localized zones, reaching anywhere from 100 to 500 meters in thickness.

3. Hydrodynamic Structure and Boundaries

It operates primarily as a confined system, hydraulically isolated from the surface and upper sand aquifers by the thick Upper-Middle Sarmatian impermeable layer (Aquitard B). Below it, it is bounded by the Cretaceous-Baden impermeable layer (Aquitard A). Due to the fractured and karstic nature of the reef limestones, it exhibits excellent water-bearing capabilities and structural permeability.

4. Hydro - chemical Profile

Because of its depth and long water-rock residence times, the N1b-s complex generally exhibits higher mineralization than overlying units. The water chemistry is complex - typically dominated by HCO_3^- (bicarbonate) and SO_4^{2-} (sulfate) anions, with highly variable concentrations of sodium (Na^+), calcium (Ca^{2+}), and magnesium (Mg^{2+}). In deeper extraction pockets toward the southern regions, it frequently transitions into brackish or highly mineralized thermal water

7.5 Geology

7.5.1 The geology layer N1s3-m specific for the Nisporeni District

The Nisporeni Districts of Moldova is located in the geological layer N1s3-m represents the Upper Sarmatian - Meotian sedimentary sequence, a distinct polyfacial stratigraphic unit deposited during the Late Miocene epoch (roughly 11.6 to 7.2 million years ago).

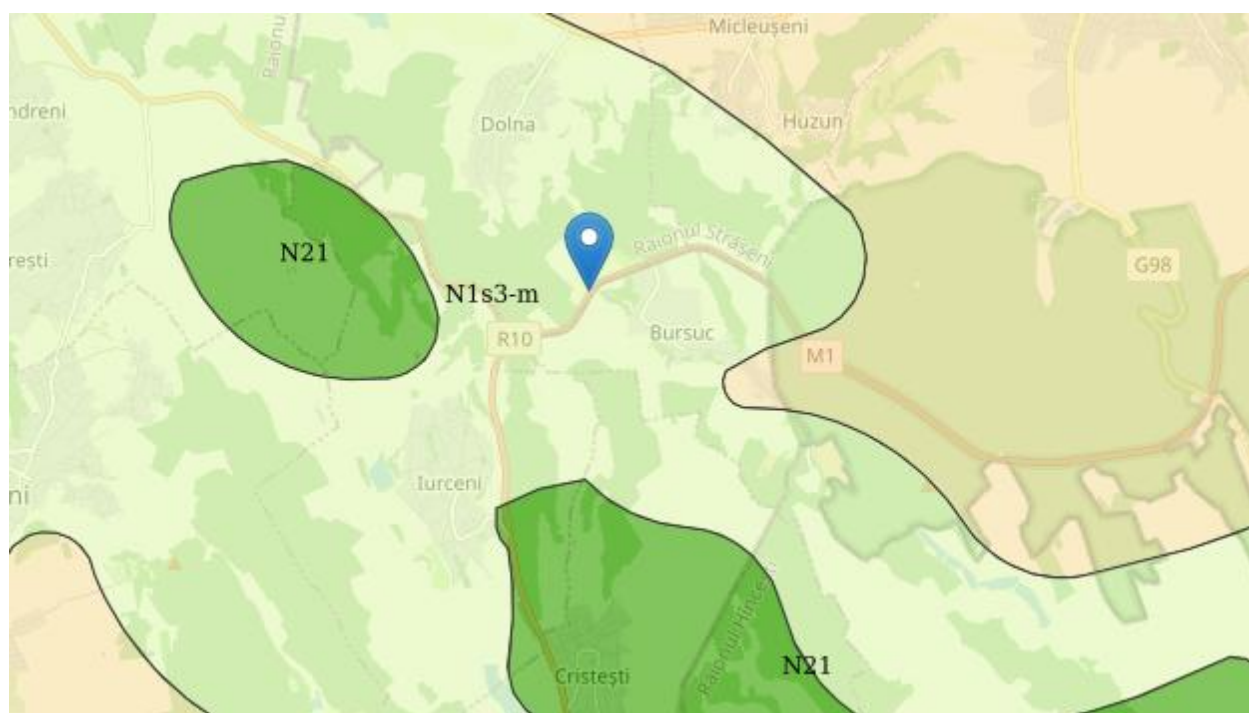


Figure 7-25: The geological layer N1s3-m specific for the Nisporeni District

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In the regional stratigraphy of the Eastern Paratethys basin (encompassing Moldova, southern Ukraine, and northeastern Romania), this layer marks a critical transition period from a shrinking, brackish marine environment to deltaic and continental landforms.

The N_{1S3-m} layer was formed as the ancient Sarmatian Sea underwent massive regression (shrinking) due to eustatic sea-level fluctuations and the regional Attic tectonic phase:

- The Lower Segment (Khersonian, s₃) represents a restricted, shallow brackish marine environment. The salinity dropped severely compared to the preceding Middle Sarmatian (Bessarabian), causing a dramatic reduction in marine species and giving rise to a highly specialized, specialized mollusk fauna (Mactra caspia zones).
- The Upper Segment (Meotian, m) reflects a transition into a prograding deltaic, coastal shoreface, and continental environment. River systems flowing from the north deposited massive amounts of alluvial material into the basin.

The N_{1S3-m} layer is a highly heterogeneous, multi-layered complex composed of:

- Dense Silty Clays: Gray, greenish, and bluish clays form the overwhelming continuous matrix of the layer, acting as regional aquitards.
- Quartz Sand Lenses: Irregularly distributed, discontinuous lenses and interlayers of fine-grained quartz sands and siltstones (aleurites). These sand bodies typically vary from 1 to 15 meters in thickness.
- Limestone and Sandstone Ribs: Thin, localized beds of shell-rich (bioclastic) limestones and weakly cemented sandstones intersect the clay beds, particularly in the coastal transition zones.

7.5.2 The geology layer N_{1S2} specific for the Straseni District

The geological index N_{1S2} refers specifically to the Middle Sarmatian (Bessarabian) layer. Positioned directly beneath the N_{1S3-m} (Upper Sarmatian-Meotian) complex and directly above the N_{1S1} (Volhynian) layer, it represents a pivotal sedimentary epoch in the Late Miocene history of the Eastern Paratethys basin

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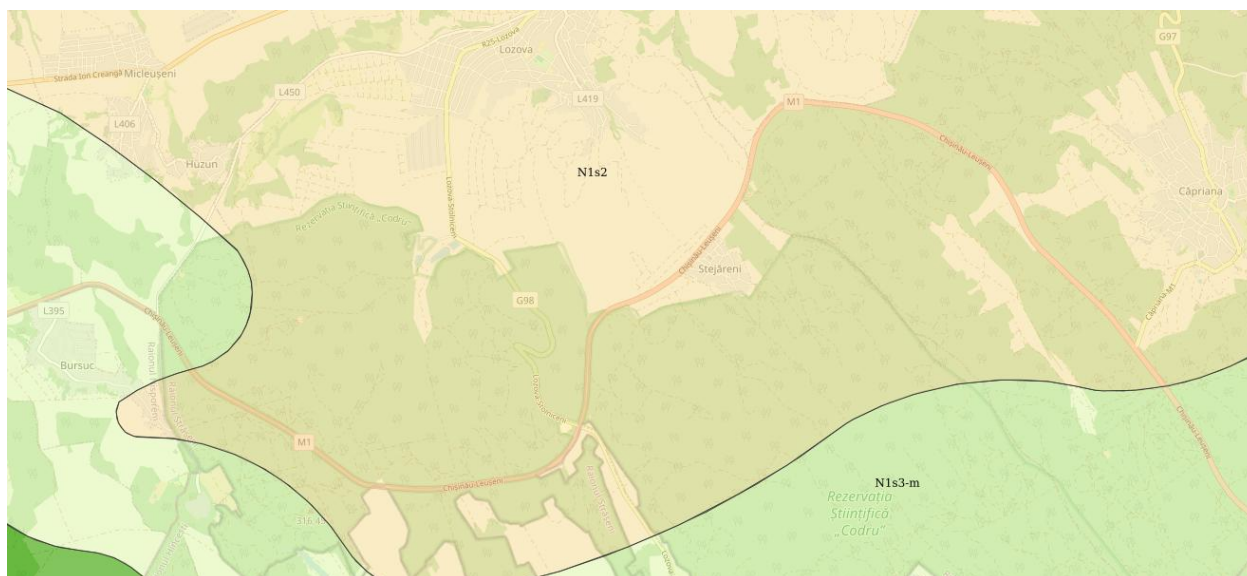


Figure 7-26: The geological layer N1s2 specific for Straseni District

The N1s2 layer features a highly diverse lithological footprint that varies cleanly by geographical belt:

- The Clay-Sand Facies (North/Central): The matrix is dominated by dense, plastic greenish-gray silty clays, mudstones, and marls, tightly interbedded with layers of fine, water-bearing quartz sands.
- The Limestone Facies (Central/South): The layer grades into robust oolitic limestones, detrital limestones, and bioherm reef strings. These limestone ridges are structurally hard and highly fractured, outcropping beautifully along river bluffs (such as the Dniester River canyon walls).

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. 3).

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 'immoveable 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

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outstanding universal value in terms of their aesthetic, ethnological or anthropological significance⁴⁸.

The National Archaeological Agency⁴⁹ 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 National Archaeological Agency, the map of protected archaeological sites is presented in the figure below.



Figure 7-27: The identified archaeological protected sites on the M1 Lot 3

The protected archaeological sites identified near the village of Stejareni are situated 150 metres from the M1 motorway, and the three mounds are more than 300 metres from the centreline of the motorway. The identified protected archaeological sites will not be affected by the reconstruction process of the express national road M1, but 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). The excavator operator will receive comprehensive training on the Chance Find Plan and will be familiar with the correct procedures for communicating in the event of identifying artefacts or other treasures during excavations.

7.6.2 The natural protected Emerald Site “Codru”

According to the European Environment Agency⁵⁰, the express road M1 crosses the Emerald Site “Codru” (Site Code: MD00000004) having the area of 6498.0000 ha (dataset year: 2025).

⁴⁸ 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/>

⁴⁹ Source: <https://ana.md/harta-siturilor-arheologice-din-republica-moldova/>

⁵⁰ Source: <https://emerald.eea.europa.eu/>

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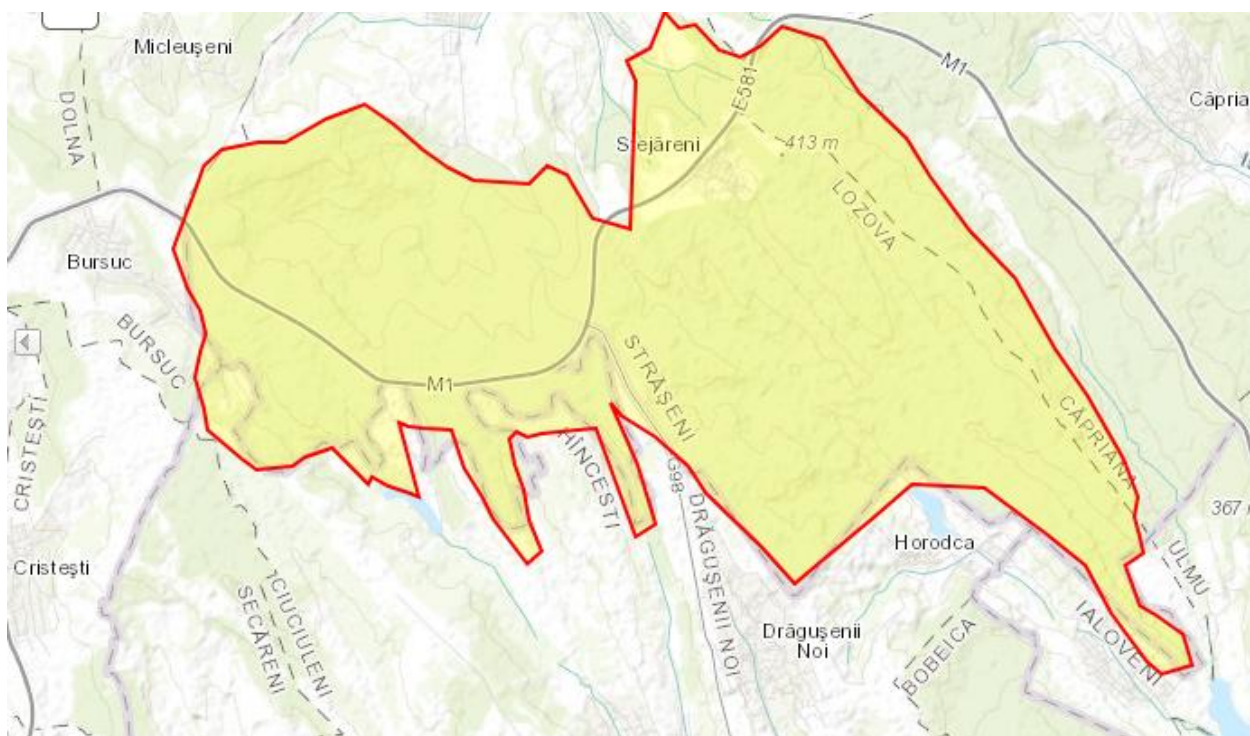


Fig. 7-28: The express road M1 (Lot no.3) crosses the Emerald Sites “Codru”

The Emerald Site “Codru” is an internationally recognized area of ecological importance located in the central hills of Moldova. The Emerald Network serves as the extension of the European Union’s Natura 2000 initiative into non-EU member states under the Bern Convention. It protects areas of special conservation interest to safeguard rare wild flora, fauna, and natural habitats.

The site acts as a major sanctuary for Central European broad-leaved forest ecosystems, protecting a cumulative total of 40 key ecological features:

- Protected Habitats: Features 4 distinct critical European habitat types, primarily dominated by multi-tiered oak-hornbeam (*Quercus petraea* - *Carpinus betulus*) forests, alongside central European beech stands and deep ravine-valley microclimates.
- Avifauna: Protects 19 rare bird species, providing nesting grounds and migratory flyway cover for birds of prey and old-growth forest specialists.
- Other Species: Home to 17 strictly protected species of non-avian fauna and flora, including vital populations of European wildcats (*Felis silvestris*), various rare bat species, stag beetles, and threatened herbaceous plants.

7.7 Biological environment

M1 Lot No. 3 (km 39+000 - km 61+750) intersects the Emerald Network Site “Codru” (Site Code MD0000004). According to the national EIA and Biodiversity Assessment Report, the M1 corridor traverses the Codru Emerald Site approximately between km 43 and km 54, corresponding to an

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interaction length of approximately 11.9 km. The site has an area of 6,498 ha and encompasses the Codru Scientific/Natural Reserve. Consequently, the Lot No. 3 works require specific biodiversity protection and mitigation measures to avoid or minimise impacts on the qualifying habitats and species of the Emerald Site.

The objective of the Emerald Site⁵¹ “Codru” 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 (*Sorbus torminalis*), bladdernut (*Staphylea pinnata*), Bulgarian onion (*Nectaroscordum bulgaricum*), tulip (*Tulipa biebersteiniana*).

Table 7-3: Protected flora and fauna in the Emerald Site “Codru”⁵²

No.	Name of species	Scientific Classification	Pictures
1	PROTECTED TREES		
1.1	Central European Beech (<i>Fagus sylvatica</i>)	Conservation status Extinct Threatened Least Concern (EX) (EW) (CR) (EN) (VU) (NT) (LC) Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: Plantae Clade: Tracheophytes Clade: Angiosperms Clade: Eudicots Clade: Rosids Order: Fagales Family: Fagaceae Genus: <i>Fagus</i> Species: <i>F. sylvatica</i>	
1.2	Sessile Oak (<i>Quercus petraea</i>)	Clasificare științifică Regn: Plantae Diviziune: Magnoliophyta Clasă: Magnoliopsida Ordin: Fagales Familie: Fagaceae Gen: Quercus Specie: Q. petraea Nume binomial <i>Quercus petraea</i>	

⁵¹ 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%8Eentreprinderea%20pentru%20silvicultur%C4%83%20%E2%80%9ENISPORENI%2DSI%20LVA%E2%80%9D%20\(Zona%20Sitului%20Emerald%20%E2%80%9E%20Nisporeni%E2%80%9D%2C](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%8Eentreprinderea%20pentru%20silvicultur%C4%83%20%E2%80%9ENISPORENI%2DSI%20LVA%E2%80%9D%20(Zona%20Sitului%20Emerald%20%E2%80%9E%20Nisporeni%E2%80%9D%2C)

⁵² Source: https://ro.wikipedia.org/wiki/Cartea_Ro%C8%99ie_a_Republicii_Moldova

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No.	Name of species	Scientific Classification	Pictures
1.3	Pedunculate Oak (<i>Quercus robur</i>)	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: <i>Plantae</i> Clade: <i>Tracheophytes</i> Clade: <i>Angiosperms</i> Clade: <i>Eudicots</i> Clade: <i>Rosids</i> Order: <i>Fagales</i> Family: <i>Fagaceae</i> Genus: <i>Quercus</i> Subgenus: <i>Quercus subg. Quercus</i> Section: <i>Quercus sect. Quercus</i> Species: <i>Q. robur</i>	
1.4	Hornbeam (<i>Carpinus betulus</i>)	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1) Scientific classification Kingdom: <i>Plantae</i> Clade: <i>Tracheophytes</i> Clade: <i>Angiosperms</i> Clade: <i>Eudicots</i> Clade: <i>Rosids</i> Order: <i>Fagales</i> Family: <i>Betulaceae</i> Genus: <i>Carpinus</i> Species: <i>C. betulus</i>	
2	PROTECTED PLANTS (Rare Vascular Plants: It is a haven for the Wild Leek (<i>Allium ursinum</i>), Coralroot Bittercress (<i>Cardamine bulbifera</i>), Snowdrop (<i>Galanthus nivalis</i>), and several rare European forest orchids).		
2.1	Wild Leek (<i>Allium ursinum</i>)	Scientific classification Kingdom: <i>Plantae</i> Clade: <i>Tracheophytes</i> Clade: <i>Angiosperms</i> Clade: <i>Monocots</i> Order: <i>Asparagales</i> Family: <i>Amaryllidaceae</i> Subfamily: <i>Allioideae</i> Tribe: <i>Allieae</i> Genus: <i>Allium</i> L.	

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No.	Name of species	Scientific Classification	Pictures
2.2	Coralroot Bittercress (<i>Cardamine bulbifera</i>)	Scientific classification  Kingdom: Plantae Clade: Tracheophytes Clade: Angiosperms Clade: Eudicots Clade: Rosids Order: Brassicales Family: Brassicaceae Tribe: Cardamineae Genus: <i>Cardamine</i> L.	
2.3	Snowdrop (<i>Galanthus nivalis</i>)	Conservation status Extinct Threatened Least Concern (EX) (EW) (CR) (EN) (VU) (NT) (LC) Near Threatened (IUCN 3.1)^[1] CITES Appendix II ^[2] Scientific classification  Kingdom: Plantae Clade: Tracheophytes Clade: Angiosperms Clade: Monocots Order: Asparagales Family: Amaryllidaceae Subfamily: Amaryllidoideae Genus: Galanthus Species: <i>G. nivalis</i>	
2.4	Coronilla <i>elegans</i>	Scientific classification  Kingdom: Plantae Clade: Tracheophytes Clade: Angiosperms Clade: Eudicots Clade: Rosids Order: Fabales Family: Fabaceae Subfamily: Faboideae Genus: Securigera Species: <i>S. elegans</i>	

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2.5	<i>Lilium martagon</i>	Scientific classification  Kingdom: Plantae Clade: Tracheophytes Clade: Angiosperms Clade: Monocots Order: Liliales Family: Liliaceae Subfamily: Lilioideae Genus: Lilium Species: <i>L. martagon</i> Binomial name <i>Lilium martagon</i>	
2.6	<i>Paeonia⁵³ tenuifolia</i>	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	<i>Agaricus bohusii</i>	Scientific classification  Kingdom: Fungi Division: Basidiomycota Class: Agaricomycetes Order: Agaricales Family: Agaricaceae Genus: <i>Agaricus</i>	
3.2	<i>Amanita regalis</i>	Scientific classification  Kingdom: Fungi Division: Basidiomycota Class: Agaricomycetes Order: Agaricales Family: Amanitaceae Genus: Amanita Species: <i>A. regalis</i>	

⁵³ Source: <https://nisporeni.silvicultura.md/albumview.php?l=ro&idc=148&id=201>

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3.3	Amanita solitaria	Scientific classification  Kingdom: Fungi Division: Basidiomycota Class: Agaricomycetes Order: Agaricales Family: Amanitaceae Genus: Amanita Species: A. echinocephala	
3.4	Boletus aereus	Scientific classification  Kingdom: Fungi Division: Basidiomycota Class: Agaricomycetes Order: Boletales Family: Boletaceae Genus: Boletus Species: B. aereus	
3.5	Phylloporus rhodoxanthus	Scientific classification  Kingdom: Fungi Division: Basidiomycota Class: Agaricomycetes Order: Boletales Family: Boletaceae Genus: Phylloporus Species: P. rhodoxanthus	
3.6	Hygrophorus persoonii	Scientific classification  Kingdom: Fungi Division: Basidiomycota Class: Agaricomycetes Order: Agaricales Family: Hygrophoraceae Genus: Hygrophorus	
3.7	Mutinus caninus	Clasificare științifică Domeniu: Eucariote Regn: Fungi Diviziune: Basidiomycota Clasă: Agaricomycetes Ordin: Phallales Familie: Phallaceae Gen: Mutinus Specie: M. caninus	
4	PROTECTED BIRDS		

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4.1	Anthus campestris	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Motacillidae Genus: <i>Anthus</i> Species: <i>A. campestris</i>	
4.2	Caprimulgus europaeus	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: Animalia Phylum: Chordata Class: Aves Clade: Strisores Order: Caprimulgiformes Family: Caprimulgidae Genus: <i>Caprimulgus</i> Species: <i>C. europaeus</i>	
4.3	Carduelis carduelis	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Fringillidae Subfamily: Carduelinae Genus: <i>Carduelis</i> Species: <i>C. carduelis</i>	
4.4	Circus aeruginosus	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: Animalia Phylum: Chordata Class: Aves Order: Accipitriformes Family: Accipitridae Genus: <i>Circus</i> Species: <i>C. aeruginosus</i>	

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4.5	Crex crex	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: Animalia Phylum: Chordata Class: Aves Order: Gruiformes Family: Rallidae Genus: <i>Crex</i> Species: <i>C. crex</i>	
4.6	Dendrocopos medius	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: Animalia Phylum: Chordata Class: Aves Order: Piciformes Family: Picidae Genus: <i>Dendrocopos</i> Species: <i>D. medius</i>	
4.7	Dendrocopos syriacus	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: Animalia Phylum: Chordata Class: Aves Order: Piciformes Family: Picidae Genus: <i>Dendrocopos</i> Species: <i>D. syriacus</i>	
4.8	Emberiza hortulana	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Emberizidae Genus: <i>Emberiza</i> Species: <i>E. hortulana</i>	
4.9	Ficedula albicollis	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Muscipidae Genus: <i>Ficedula</i> Species: <i>F. albicollis</i>	

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4.10	Ficedula parva	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Muscicapidae Genus: Ficedula Species: F. parva	
4.11	Fringilla coelebs	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Fringillidae Genus: Fringilla Species: F. coelebs	
4.12	Lanius collurio	Conservation status Extinct Threatened Least Concern EX EW CR EN VU NT LC Least Concern (IUCN 3.1)^[1] Scientific classification Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Laniidae Genus: Lanius Species: L. collurio	
5	MAMIFERES		
5.1	Talpa europaea	Stare de conservare Disparut Pe cale de disparitie Risc scazut EX EW CR EN VU NT LC Risc scazut (LC) (IUCN 3.1)^[1] Clasificare stiintifica Regn: Animalia Încręgătură: Chordata Clasă: Mammalia Ordin: Soricomorpha Familie: Talpidae Gen: Talpa Specie: T. europaea	

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5.2	Vulpes vulpes	Conservation status Extinct Threatened Least Concern (EX) (EW) (CR) (EN) (VU) (NT) (LC) Least Concern (IUCN 3.1)^[1] Presumed Extinct At risk Secure (GX) (GH) (G1) (G2) (G3) (G4) (G5) Secure (NatureServe)^[2] Scientific classification Kingdom: Animalia Phylum: Chordata Class: Mammalia Order: Carnivora Family: Canidae Genus: Vulpes Species: V. vulpes	
5.3	Scrof scrofa	Stare de conservare Disparut Pe cale de disparitie Risc scazut (EX) (EW) (CR) (EN) (VU) (NT) (LC) Risc scazut (LC) (IUCN 3.1)^[1] Clasificare stiintifica Regn: Animalia Increngatură: Chordata Subincrengatură: Vertebrata Clasă: Mammalia Subclasă: Theria Infraclasă: Placentalia Ordin: Artiodactyla Subordin: Suina Familie: Suidae Gen: Sus Specie: S. scrofa	

7.8 Social baseline specific for the Nisporeni District

7.8.1 General data

The Nisporeni District⁵⁴ 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 Herbafruct⁵⁵ micro-cluster, which focuses on the cultivation, processing, and marketing of medicinal, aromatic, and oil-bearing plants. The Nisporeni sub-zone of the Ungheni-Business⁵⁶ ZEL operates within the district, covering 26.1 ha (brownfield and greenfield), with access to utilities and the R25 road.

⁵⁴ Source: <https://nisporeni.md/despre-raion/>

⁵⁵ Source: <https://herbafruct.md/>

⁵⁶ Source: <http://www.freezone-ungheni.md/ro/>

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This is also where nationally and internationally renowned companies operate, such as ICS Nires International SRL⁵⁷, which specializes in footwear manufacturing, and Nisprofcon, which is active in the construction of residential and non-residential buildings.

7.8.2 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 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.

7.8.3 The educational process in the Nisporeni District

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;

⁵⁷ Source: https://invest.gov.md/invest_region/nisporeni/

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- 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.

The Vocational School⁵⁸ 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 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 The census data specific for the Nisporeni District

The Nisporeni Districts are located in the central part of the Republic of Moldova, in the Codri area. The Nisporeni District⁵⁹ 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).

⁵⁸ Source: <https://spnisporeni.md/admiterea/>

⁵⁹ Source: <https://nisporeni.md/primariile-raionului/>

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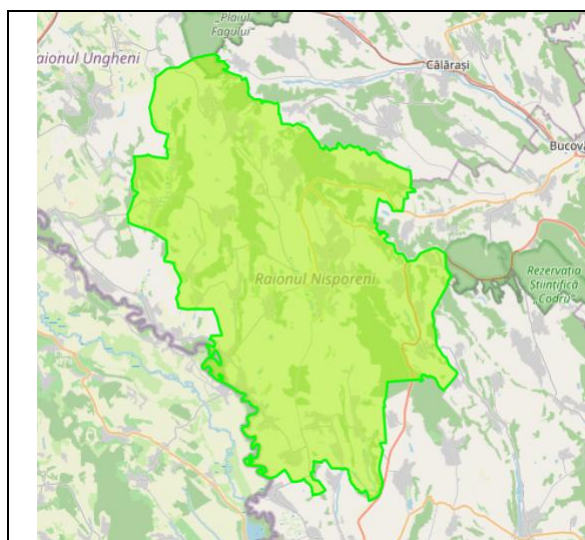


Fig. 7-29: The map of the Nisporeni District

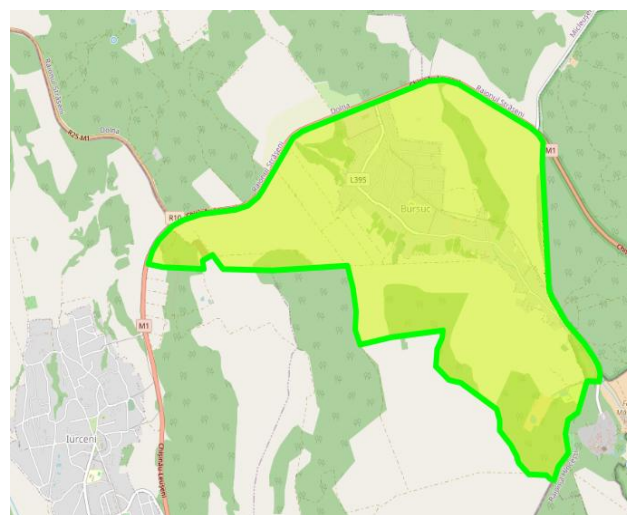


Fig. 7-30: The location of the Bursuc village from Nisporeni District

Name	Status	Population Census 2004-10-05	Population Census 2014-05-12	Population Census 2024-04-08
Nisporeni	District	64,924	47,750	36,413

Nisporeni

- 36,413 Population [2024] - Census
- 629.0 km² Area
- 57.89/km² Population Density [2024]
- 2.7% Annual Population Change [2014 → 2024]

Nisporeni District: district of Moldova - Elevation: 430 m - [Official Website](#) - Licence plate code: NI

Fig. 7-31: Census data of the Nisporeni District

Name	Status	Population Census 2004-10-05	Population Census 2014-05-12	Population Census 2024-04-08
Bursuc	Commune-level Village	1,306	1,084	709

Bursuc

- 709 Population [2024] - Census
- 5.944 km² Area
- 119.3/km² Population Density [2024]
- 4.2% Annual Population Change [2014 → 2024]

Bursuc: village in Nisporeni District, Moldova - Elevation: 333 m - Local dialing code: 264 - Postal code: MD-6442

Fig. 7-32: The Census data of the Bursuc village

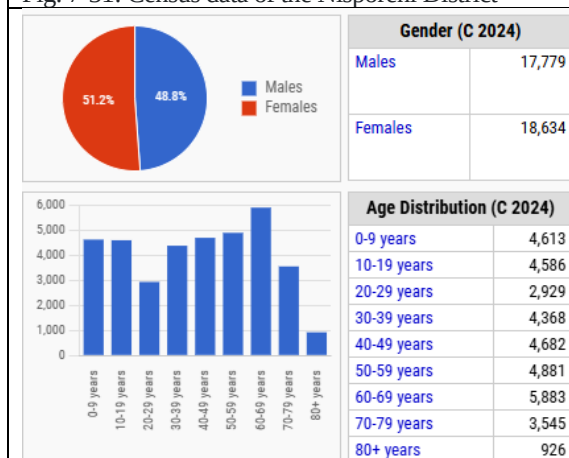


Fig. 7-33: Census data of the population structure Nisporeni District

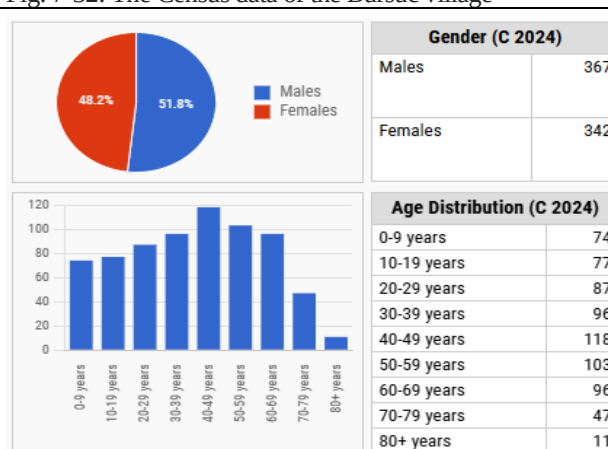
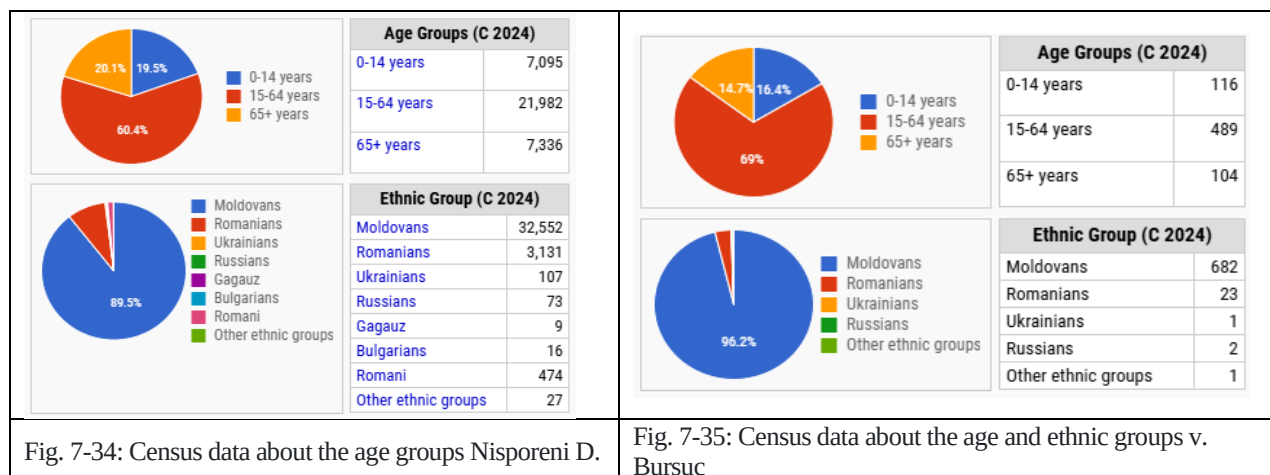


Fig. 7-34: Census data of the population structure Bursuc v.

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7.9 Social baseline specific for the Straseneni District

7.9.1 General data

The Strășeni District⁶⁰ is an administrative-territorial unit located in the central region of the Republic of Moldova. Positioned roughly 23 kilometers northwest of the capital, Chișinău, it serves as a crucial logistical, economic, and cultural bridge in the central Moldovan platform. The district covers a total land area of 729.1 square kilometers. It sits predominantly within the picturesque Codri region, characterized by dense broad-leaved forests, rolling hills, ridges, and valleys. The Bâc River cuts through the territory. The district consists of 39 individual localities. This includes two cities: the administrative center Strășeni (Municipality) and the smaller town of Bucovăț.

7.9.2 The Straseneni District Council

The Strășeni District Council⁶¹ is the second-level local public administration authority governing the Strășeni District. It serves as the primary decision-making body coordinating public services, socioeconomic development plans, and regional infrastructure across the district's 39 localities.

The Strășeni District Council maintains jurisdiction over several localized development vectors, running its workflows out of the official Straseneni District Council web site:

- **European Integration & Strategic Funds:** The council directly interfaces with international aid programs, notably managing local workshops regarding European financing horizons (such as the EU4Environment frameworks and cross-border partnerships).
- **Public Infrastructure Management:** It oversees the technical maintenance and optimization of regional infrastructure, which includes trying to modernize deep water intake systems (addressing high aquifer mineralization challenges affecting local artesian grids) and managing local connectivity to the Strășeni Free Economic Zone.

⁶⁰ Source: <http://www.crstraseni.md/index.php?l=ro>

⁶¹ Source: <http://www.crstraseni.md/index.php?page=page&id=893&l=ro>

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- High Transparency Rating: In independent monitoring assessments organized by regional governance watchdogs, the Strășeni District Council historically ranks as one of the top-performing, most transparent level-II public authorities in Moldova, outscoring most other regional councils in categories like budgeting access and public procurement clarity.

Based on the official structure of the Straseneni District Council, these are primary structural directorates that operate with specialized financial and operational independence:

- General Directorate of Education: The largest body, overseeing public schools, pre-schools, and educational staffing.
- Directorate of Finance: Drafts the local public budgets, controls regional public procurement, and oversees municipal auditing.

Specialized Sections & Internal Services operating internally within the central administrative offices to handle legal, logistical, and social services:

- Section of Culture, Tourism, Youth, and Sport
- Legal Service
- Human Resources Department.

7.9.3 The educational process in the Straseneni District

The educational process in the Strășeni District is structurally managed by the General Directorate of Education Straseneni, which operates as a legal subdivision under the Strășeni District Council. The district's educational system focuses on high geographical accessibility, modernizing professional tracks, and expanding inclusive schooling networks.

The district manages 42 educational institutions. Unlike many regions across central Moldova that have seen sharp rural depopulation, Strășeni represents a structural exception. The average number of students per institution has actually grown from roughly 299 to 325 students per school, indicating a consolidating and highly resilient network.

The Strășeni District plays a central strategic role in national Technical Vocational Education (VET) across the central region.

The Dual Education Model is a major cornerstone of the district's modern educational profile is the Strășeni Engineering College. In close partnership with German developmental support, the college pioneered a highly successful dual education framework. Students split their time symmetrically acquiring technical concepts in the classroom while gaining real-time, paid industrial training inside local companies operating within the Strășeni Free Economic Zone⁶².

7.9.4 The census data specific for the Straseneni District

The Nisporeni Districts are located in the central part of the Republic of Moldova, in the Codri area. The Nisporeni District⁶³ is made up of a total of 39 localities, which are organised in the following

⁶² Source: <https://zelb.md/subzone/zona-straseni/>

⁶³ Source: <https://nisporeni.md/primariile-raionului/>

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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).

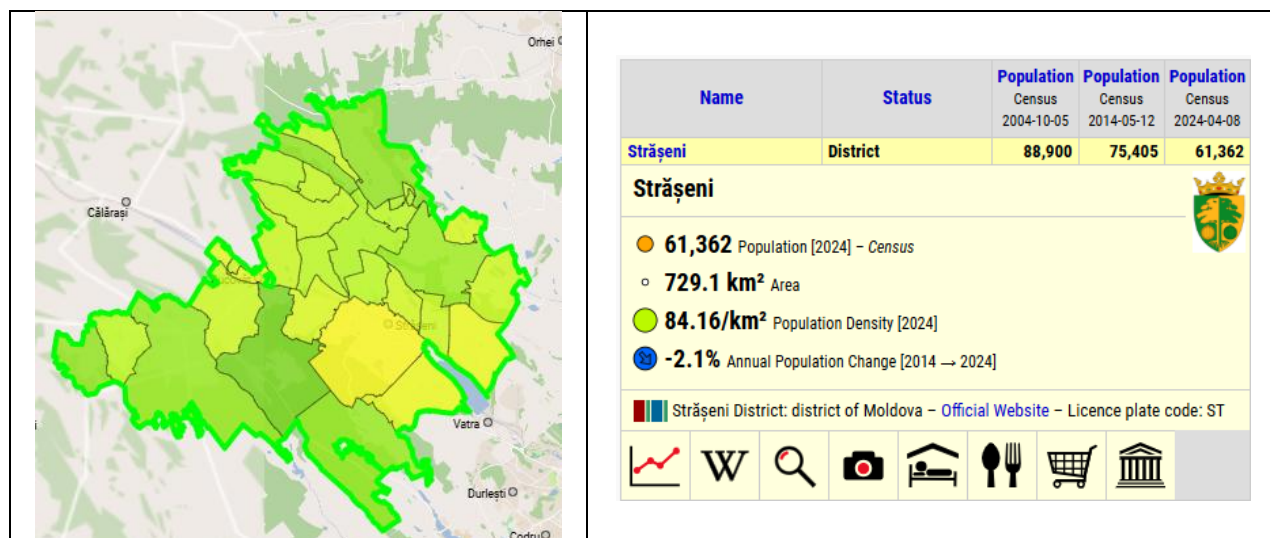


Fig. 7-36: The map of the Straseneni District

Fig. 7-37: The census data of the Straseneni District

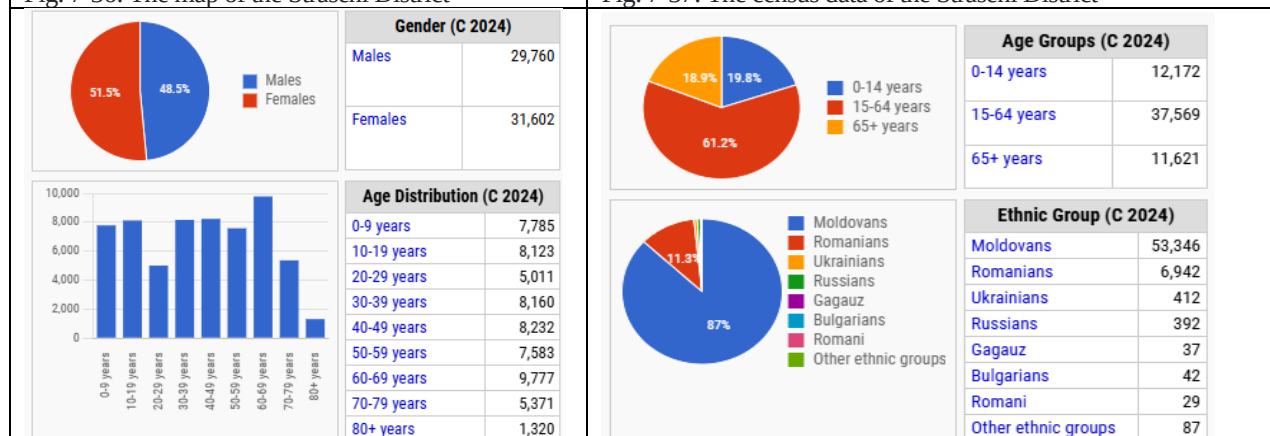


Fig. 7-38: The population structure of the Straseneni District

Fig. 7-38: The Census data of age and ethnic groups Straseneni District

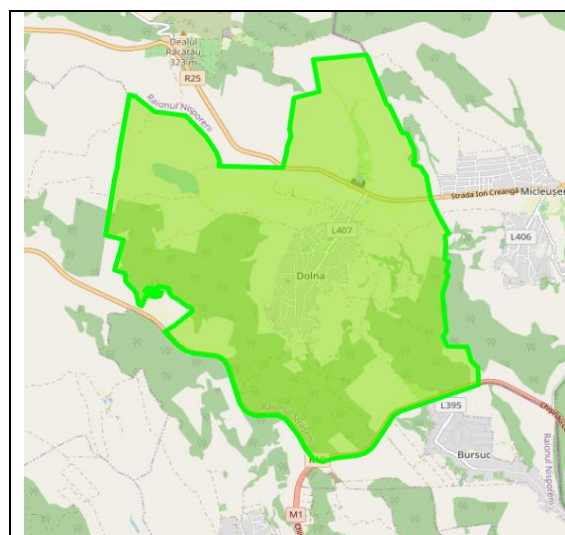


Fig. 7-39: The Dolna village from the Straseneni District

Name	Status	Population Census 2004-10-05	Population Census 2014-05-12	Population Census 2024-04-08
Dolna	Commune-level Village	1,155	944	699
Dolna 699 Population [2024] – Census 18.81 km² Area 37.17/km² Population Density [2024] -3.0% Annual Population Change [2014 → 2024] Dolna: village in Strășeni District, Moldova – Local dialing code: 237 – Postal code: MD-6425				
				
Moldova [w/o Transnistria]	Republic	3,383,332	2,789,205	2,409,207

Fig. 7-40: Census data of the population structure Dolna v.

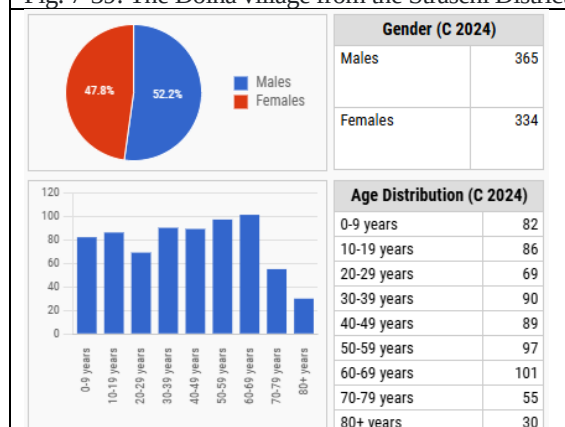


Fig. 7-41: The population structure in the Dolna v.

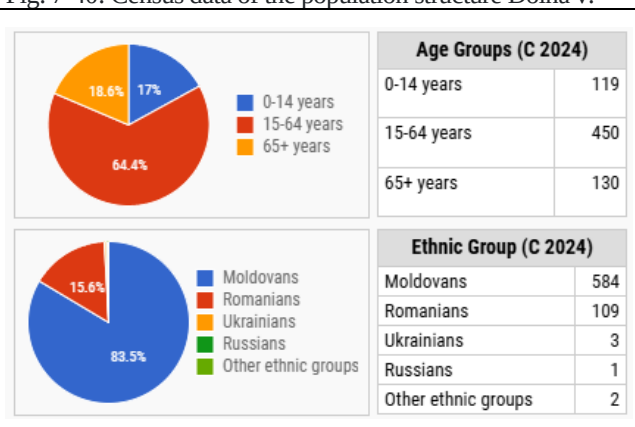


Fig. 7-41: The age and ethnic groups Dolna v.

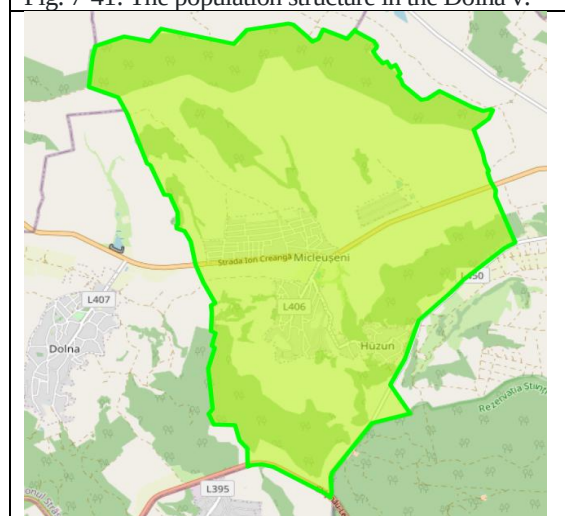


Fig. 7-42: The Micleuseni v. from the Straseneni District

Name	Status	Population Census 2004-10-05	Population Census 2014-05-12	Population Census 2024-04-08
Micleușeni	Commune	2,334	2,137	1,465
Micleușeni 1,465 Population [2024] – Census 20.15 km² Area 72.71/km² Population Density [2024] -3.7% Annual Population Change [2014 → 2024] Micleușeni: commune in Strășeni District, Moldova				
				
Moldova [w/o Transnistria]	Republic	3,383,332	2,789,205	2,409,207

Fig. 7-43: Census data about the Micleuseni v.

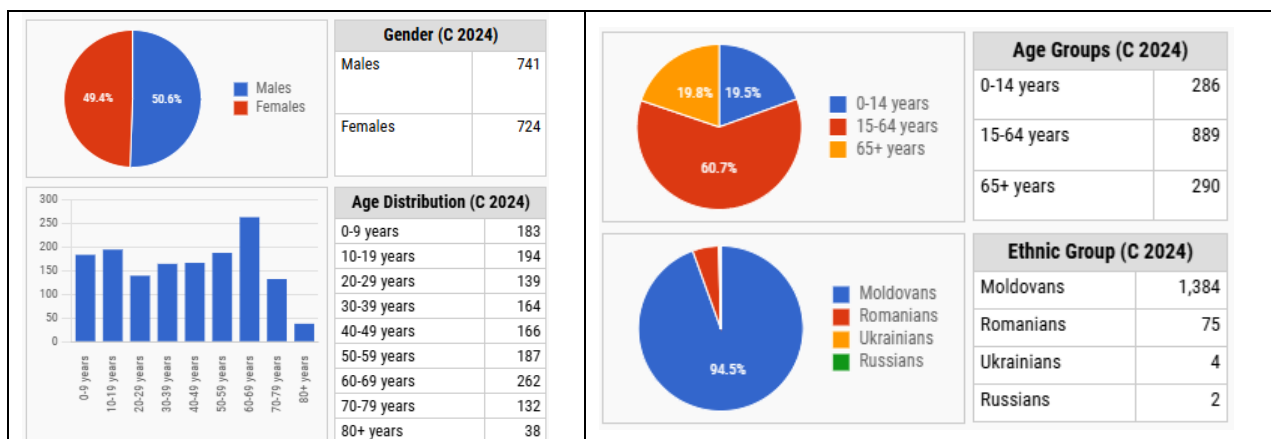


Fig. 7-44: The population structure Micleuseni v.

Fig. 7-45: The age and ethnic groups Micleuseni v.

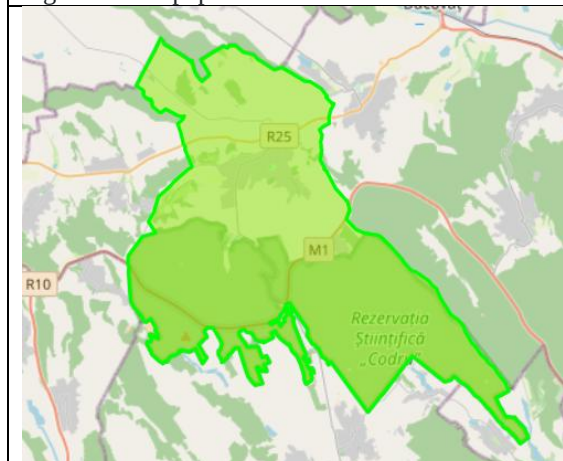


Fig. 7-46: The Lozova com. Strasen District

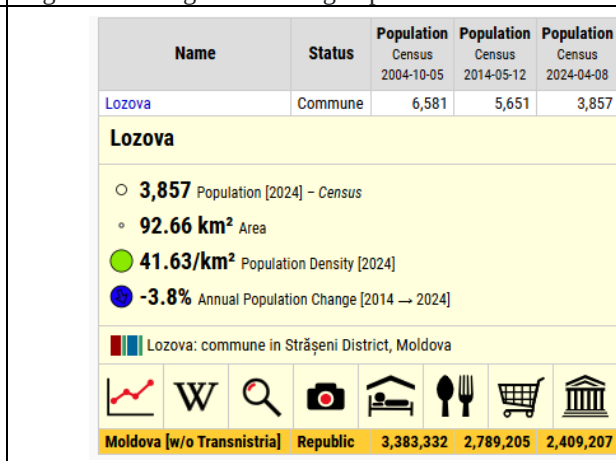


Fig. 7-47: The census data Lozova com.

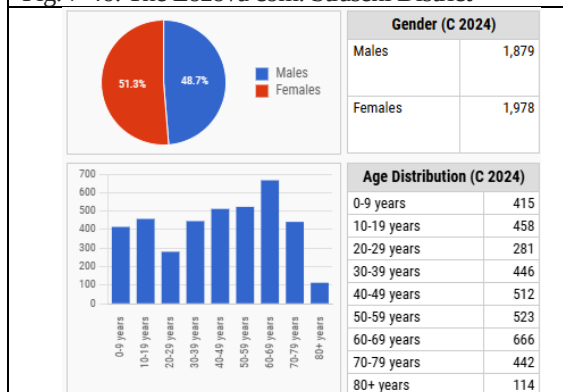


Fig. 7-48: The population structure Lozova com.

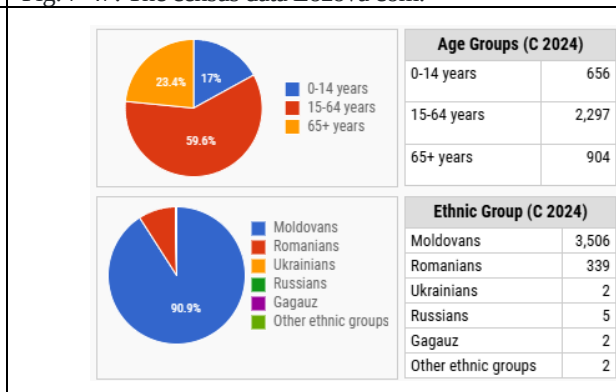


Fig. 7-49: The age and ethnic groups Lozova com.

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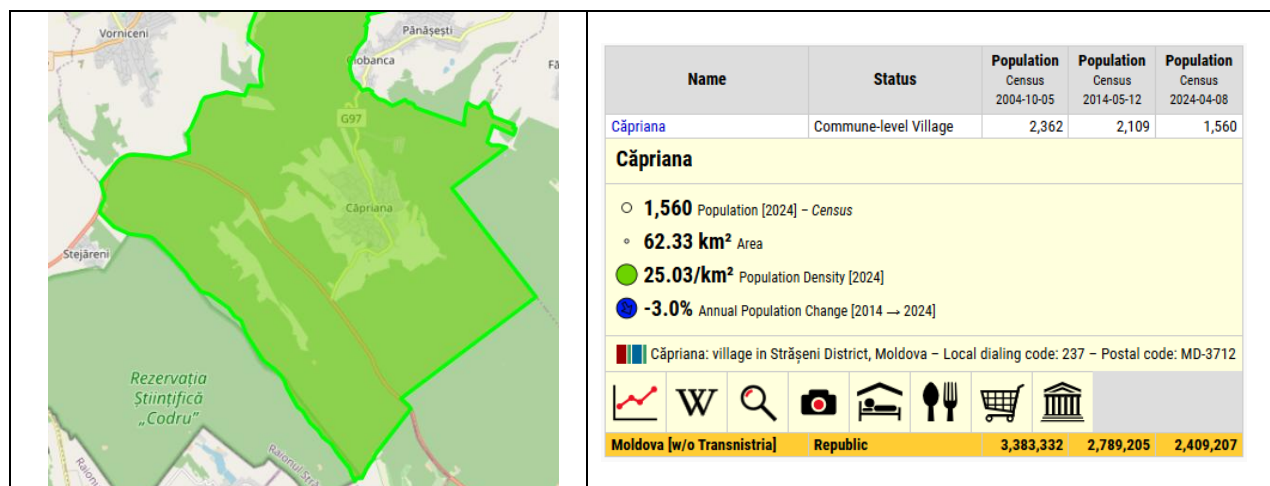


Fig. 7-50: The capriana com. From Straseni District

Fig. 7-51: Censusu data of the Capriana com.

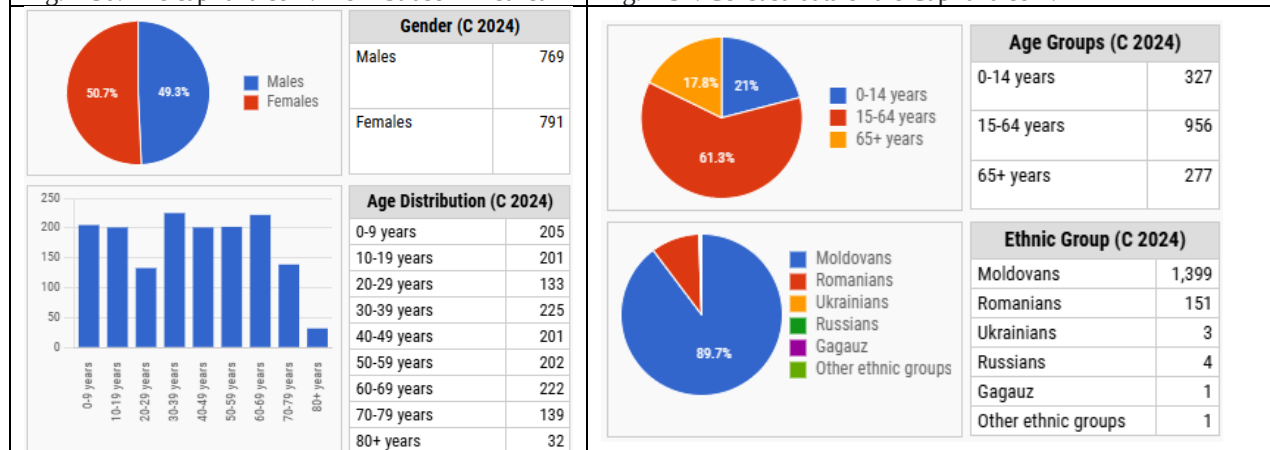


Fig. 7-52: The population structure Capriana com.

Fig. 7-53: The age and ethnic groups Capriana com.

7.10 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 7-4: List of private lands acquired for the reconstruction of the M1 Lot 3 km 39+000 and km 61+750

No.	Cadastral number	Area required for construction	Area required for safety	Purchased by	Localities
1	6021101.153	Private land	1 portion	NRA	Bursuc village, Nisporeni
2	6021101.138	Private land	1 portion	NRA	Bursuc village, Nisporeni
3	6035104.172	Private land	1 portion	NRA	Iurceni com. Nisporeni
4	6039112.813	Private land	1 portion	NRA	Micleuseni com. Straseni District
5	8022307.134	Private Land	1	NRA	Lozova c. Straseni District
6	8022303.046	Private Land	1	NRA	Lozova c. Straseni District

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No.	Cadastral number	Area required for construction	Area required for safety	Purchased by	Localities
7	8022303.139	Private Land	1	NRA	Lozova c. Strasenii District
8	8022303.138	Private Land	1	NRA	Lozova c. Strasenii District
9	8022303	Private Land	2 plots	NRA	Lozova c. Strasenii District
10	6026213.002	Private Land	1	NRA	Ciuciuleni, Hincesti
11	6026213.003	Private Land	1	NRA	Ciuciuleni, Hincesti
12	6026213.004	Private Land	1	NRA	Ciuciuleni, Hincesti
13	6026213.005	Private Land	1	NRA	Ciuciuleni, Hincesti
14	6026213.175	Private Land	1	NRA	Ciuciuleni, Hincesti
15	6026213.006	Private Land	1	NRA	Ciuciuleni, Hincesti
16	6026213.179	Private Land	1	NRA	Ciuciuleni, Hincesti
17	6026213.080	Private Land	1	NRA	Ciuciuleni, Hincesti
18	6026213.081	Private Land	1	NRA	Ciuciuleni, Hincesti
19	6026213.170	Private Land	1	NRA	Ciuciuleni, Hincesti
20	6031201.001	Private Land	1	NRA	Dragusenii Noi Hincesti
21	6031201.074	Private Land	2	NRA	Dragusenii Noi Hincesti
22	6031201.068	Private Land	1	NRA	Dragusenii Noi Hincesti
23	6031201.001	Private Land	1	NRA	Dragusenii Noi Hincesti
24	8011109.276	Private Land	1	NRA	Capriana com., Strasenii District
25	8011203.271	Private Land	1	NRA	Capriana com., Strasenii District
26	8011203.271	Private Land	1	NRA	Capriana com., Strasenii District
27	8011203	Private Land	1	NRA	Capriana com., Strasenii District
28	8011302.404	Private Land	1	NRA	Capriana com., Strasenii District

The process for the acquisition of public land required for the Project will be described in the Resettlement Action Plan (RAP), based on the land requirements and affected areas identified in the approved Technical Design.

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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 Nisporeni and Strasenii 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. 3), and to control risks during the construction and operational stages.

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The flow chart of the risk assessment procedure during the design process⁶⁴ is presented in the figure below.

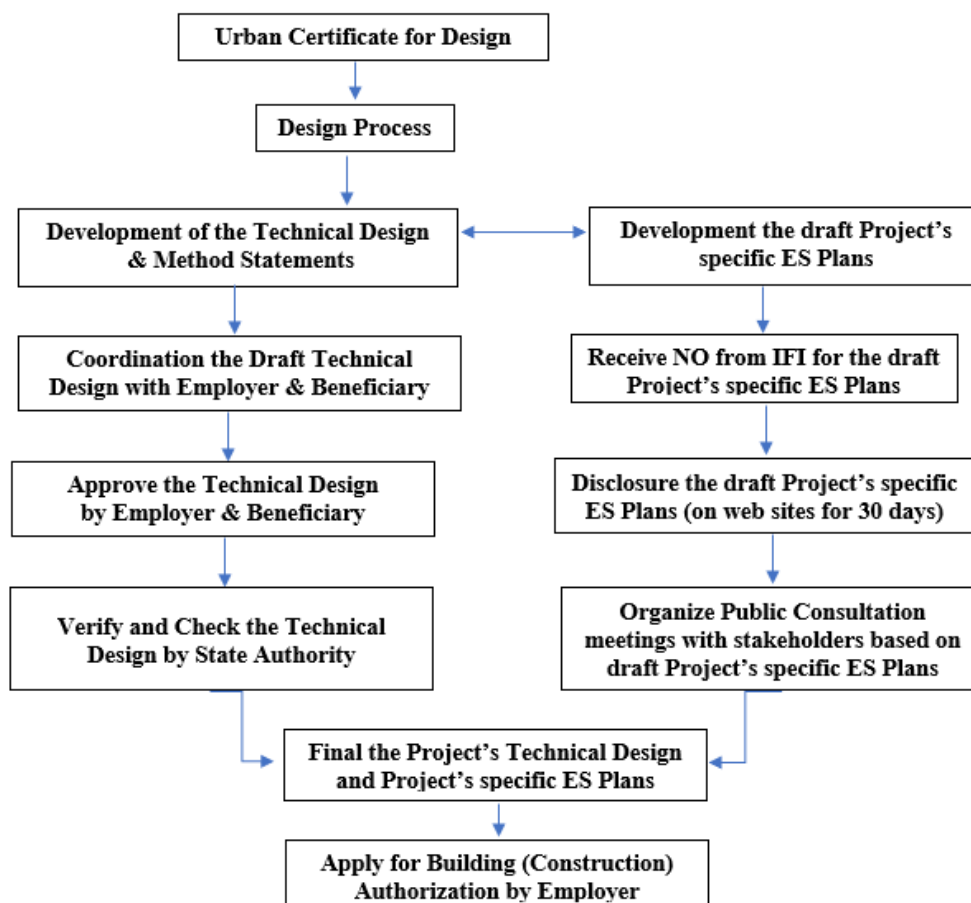


Figure 8-1: Risks assessment procedure during the Design Process

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

⁶⁴ The Design process shall be started mandatory based on the presence of the Planning Town urbanism Certificates for Design issued by the Nisporeni & Strasen District Councils.

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- 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 Nisporeni & Straseni 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. 3 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 Nisporeni & Straseni District Councils,
- Sanitary Notice issued by the Ungheni and Chisinau 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.3.

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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 Lot no.3 (km 39+000 – km 61+750). It encompasses the potential impacts on the lives, livelihoods, health or well-being of external stakeholders and the natural environment specific to Lot No. 3 from the Nisporeni & Strasenii Districts.

The reconstruction process will take place within the existing linear corridor of the M1 Lot No. 3. 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 Nisporeni & Strasenii 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)

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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)'.

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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 Nisporeni & Straseni 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. 3 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

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8.4.1 General

Taking into account the location of the existing corridor in the Nisporeni & Straseni 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:

- special regime of protection (applicable ES laws of Republic of Moldova and EBRD, etc.);
- value of receptor (social – community and workforce HS, environmental – reduce consumption of resources and reduce pollution, etc.);
- direction & intensity.

8.4.3 Sources of Impacts

The rehabilitation process of the express national road M1 Lot no.3 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 and other old infrastructure
4	Excavate and remove the foundation soil
5	Remove the old road infrastructure (culverts, OHTL, etc.)
6	Remove the OHTL tower
CP	CONSTRUCTION PHASE

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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:

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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	Pave ment	Bridges & overpasses	Drainage structures	Incidental construction	Road marking & signing
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			(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)

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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	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)

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Specific traffic aspects/Traffic Road Management	Mobilisation & Site Organisation, Plants, Borrow pit	Demolition process (ex. road infrastr., 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						Operation & Maintenance
	ES & OHS	Workforce Competence	Compliance with ES laws & requirements	Emergency preparedness & response	Purchase of materials, goods & service	M&E process	
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	(+)	(+)	(+)	(+)	(+)	(+)	(+)

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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.3:

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

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The rest of assessed risks were given the **Low level of Sensitivity** during the entire rehabilitation process of the road M1 Lot no.3

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:

- spatial extent* (spatial extent describes the geographical reach of an impact area or the range within which an effect is observable), and
- 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

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Nisporeni and Straseni Districts, 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 (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 (+)

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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.3 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

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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 Nisporeni & Straseni 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 Nisporeni & Straseni Districts, disclose technical, environmental and social documents, establish a communication channel (complaint mechanism) and external reporting, integrate the new reconstruction facility into the Nisporeni & Straseni 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 Nisporeni & Straseni 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.

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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 PM₁₀);
- 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.

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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 construction activity;
- 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.

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- It is not allowed fishing in the reconstruction area;
- It is not allowed hunting in the reconstruction area;
- It is forbidden to set the fire on site or incinerate the solid wastes;
- It is forbidden to make noise more 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 to avoid entrance of animals on site;
- Evacuate every day leftover wastes from construction site in order not to allow animals on construction site (wild boar, foxes, etc.)
- It is forbidden to store 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 store any type of waste directly 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 Survey⁶⁵.

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.

⁶⁵ Source:

[https://crstraseni.md/media/files/studiul_de_evaluare_a_biodiversitatii_906210.pdf#:~:text=%C8%99i%20funa%2C%20inclusiv%20vegeta%C8%9Bia%20%C8%99i&text=%2D%20%C3%8Eentreprinderea%20pentru%20silvicultur%C4%83%20%E2%80%9ENISPORENI%2DSILVA%E2%80%9D%20\(Zona%20Situului%20Emerald%20%E2%80%9EViila%20Nisporeni%E2%80%9D%2C](https://crstraseni.md/media/files/studiul_de_evaluare_a_biodiversitatii_906210.pdf#:~:text=%C8%99i%20funa%2C%20inclusiv%20vegeta%C8%9Bia%20%C8%99i&text=%2D%20%C3%8Eentreprinderea%20pentru%20silvicultur%C4%83%20%E2%80%9ENISPORENI%2DSILVA%E2%80%9D%20(Zona%20Situului%20Emerald%20%E2%80%9EViila%20Nisporeni%E2%80%9D%2C)

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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 managed 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.

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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 Nisporeni & Straseni Districts by executing the reconstruction process of the express national road M1 Lot no.3.

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 Nisporeni & Straseni 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.

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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.

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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.

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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 Nisporeni & Straseneni 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;

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(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;

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- 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 Nisporeni & Straseni 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 Nisporeni & Straseni ME 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;

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- 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;

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- 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;

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- 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.

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- 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.

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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 Nisporeni & Straseni 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;

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- 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 Nisporeni & Straseni 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.);

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8. Notify the responsible local authorities (Nisporeni & Straseni Districts), Ministry⁶⁶ of Culture and National Archaeological Agency⁶⁷ 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;

⁶⁶ Source: <https://www.mc.gov.md/>

⁶⁷ Source: <https://ana.md/>

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- 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 Nisporeni & Straseni 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.

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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.

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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.3	Contractor	1 Supervision Consultant 2 Employer 3 Nisporeni & Straseni District Council 4 Environmental Agency 5 IPM Nisporeni & Straseni 6 NAPH & CSP Ungheni and Chisinau 7 National Inspectorate for Technical Supervision (NITS)	Contractor’s Budget	Contractor’s work plan
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.3	Contractor			
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.3	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.3	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.3	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.3	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.3	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.3	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.3	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.3	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.3	Contractor			
OPERATIONAL PHASE						
Labour and working conditions	1. The ESMS establishes, implements and maintains by the Beneficiary.	Lot no.3	NRA	NRA NATS	NRA’s Budget	ESMS O&M Plan

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

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10 CAPACITY BUILDING

10.1 General

The European Bank for Reconstruction and Development⁶⁸ 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.

⁶⁸ Source: <https://www.ebrd.com/home/news-and-events/publications/institutional-documents/environmental-and-social-policy-2024.html>

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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	ENVIRONMENTAL 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				

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#	Training subject	Time and duration	Recipients	Organizer	Cost
13	The Project's LMP specific for reconstruction site Lot no.3	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.

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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)	2026-30	Beneficiary	Beneficiary	Beneficiary
2	Compliance with applicable laws	2026-30	Beneficiary	Beneficiary	Beneficiary
3	ES&OHS Risk Assessment Procedure	2026-30	Beneficiary	Beneficiary	Beneficiary
4	Certification of the monitoring and measurement equipment (technical and metrological)	2026-30	Beneficiary	Beneficiary	Beneficiary
5	Emergency situation	2026-30	Beneficiary	Beneficiary	Beneficiary
6	Environmental and Social Management System	2026-30	Beneficiary	Beneficiary	Beneficiary
7	Capacity building	2026-30	Beneficiary	Beneficiary	Beneficiary

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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;

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- 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.3;
- Implementation of the Project's specific ESMP for reconstruction process of the Lot no.3;
- Implementation of the Project's specific LMP for reconstruction process of the Lot no.3;
- Implementation of the Project's specific Code of Conduct for reconstruction process of the Lot no.3;
- Implementation of the Project's specific Consultation and Participation Plan for reconstruction process of the Lot no.3;
- Implementation of the Project's specific Complaint Mechanism for reconstruction process of the Lot no.3;
- 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:

- Nisporeni & Straseni 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);

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- National Inspectorate for Technical Supervision.

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

WHAT parameter is to be monitored	WHERE is the parameter 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

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WHAT parameter is to be monitored	WHERE is the parameter 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 dump 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

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WHAT parameter is to be monitored	WHERE is the parameter 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
Cleanliness 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 parameter 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

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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.3) 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 Nisporeni & Straseneni 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 Nisporeni & Straseneni 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;

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- The Project's specific ESMP for reconstruction process of the express road M1 Lot no.3;
- 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 2019⁶⁹, 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 proportionate 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.**

⁶⁹ Source: <https://www.ebrd.com/home/news-and-events/publications/institutional-documents/environmental-and-social-policy-2019.html>

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According to the Contravention Code⁷⁰ 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.

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

⁷⁰ The Contravention Code no. 218/2008: https://www.legis.md/cautare/getResults?doc_id=150830&lang=ro

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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. 3.

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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. 3) 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.3 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 Nisporeni & Straseni 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.

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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. 3. 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.

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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)⁷¹ 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 ESAP⁷².

⁷¹ Source: <https://www.andsa.md/en/>

⁷² Source: <https://www.andsa.md/>

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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. 3.

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. 3) 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.

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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.

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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. 3), a public consultation will be organised at the Nisporeni & Straseni District Councils premises. The consultation will invite the affected villages from the Nisporeni District (Bursuc village) and the Straseni District (Dolna, Micleuseni, Lozova, Capriana), the community from the Nisporeni & Straseni Districts, the Nisporeni & Straseni District Councils, the Nisporeni & Straseni Construction Directorate and other interested parties, as per the revised ESMP. Representatives from the Environmental Agency, the Nisporeni & Straseni Environmental Protection Inspectorates (EPI), the National Inspectorate for Technical Supervision, the National Agency for Public Health and the Ungheni and Chisinau Centres for Public Health, the National Employment Agency (ANOFM), the ME Apa Canal Nisporeni & Straseni, 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. 3) and the identified environmental and social risks, along with the proposed mitigation measures, are disclosed on the websites of the Employer, the Nisporeni & Straseni 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:

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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 Design Consultant	The Hincesti District Design Consultant	Done
2025	Development of the technical design	The Technical Design has been coordinated with the Beneficiary	Staff of the Designer Employer's Technical staff	DD was developed based on applicable requirements of RM	Done
Q-1-2026	Development of draft Project's specific ESMP, LMP, CoC, etc. for Lot no.1	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 ES mitigation measures	Done
Q-2-2026	Development of draft Project's specific ESMP, LMP, CoC, etc. Lot no.2	Public Consultation shall be organized at the Nisporeni District Council	The Nisporeni District Council and affected communes/ villages, Lot no.2	At the PC meeting shall be presented DD and ES mitigation measures	Done
Q-3-2026	Development of draft Project's specific ESMP, LMP, CoC, etc. Lot no.3	Public Consultation shall be organized at the Straseni District Council	The Straseni District Council and affected communes/ villages Lot no.3	At the PC meeting shall be presented DD & ES mitigation measures	Done
Q-4-2026	Development of draft Project's specific ESMP, LMP, CoC, etc. Lot no.4	Public Consultation shall be organized at the Ialoveni District Council and CMC	The Ialoveni District Council and affected communes/ villages, Lot no.4	At the PC meeting shall be presented DD and ES mitigation measures	Done

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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 Nisporeni & Straseni 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 Nisporeni & Straseni 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 Nisporeni & Straseni District Councils for receiving Construction Authorization.

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

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

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The National Road Administration (NRA)	The Nisporeni District Council	The Strasenii District Council
mun. Chișinău, str. Bucurei, 12A MD 2004 Tel. (Green Line): (+373)78 337 744 Tel. (Green Line): (+373)60 477 117 Relații cu presa: (+373) 60477004 Email: cancelaria@andsa.md , serviciu@andsa.md , presa@andsa.md	str. Ioan Vodă 2, MD – 6401 or. Nisporeni, Republica Moldova E-mail: consiliul.raional-nisporeni@apl.gov.md cr.nisporeni@gmail.com Președinte: (+373) 264-2-26-50 Secretar Consiliu: (+373)26422057 Anticamera: (+373) 264-2-20-58	Address: 28 Mihai Eminescu Street, Strășeni Municipality, Republic of Moldova Tel.: +373 (237) 2-36-30; +373 (237) 2-20-58 E-mail: consiliulraional@crstraseni.md Website: https://crstraseni.md/index.php?l=ro
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 Nisporeni & Strasenii 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 Nisporeni & Strasenii District Councils, etc.

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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

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

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

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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			
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			
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			
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:		Date:	
Name:			
Reviewed by:			
Name:			

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Signature:			
Date:			
Part C: Remedial (Correction) and Corrective Action(s) to address Non-conformance			
Correction Actions (To be completed by the Responsible Manager)			
Insert a clear and concise description of the Correction (Remedial Action to be taken to rectify the Major Non-conformance identified)			
Proposed by		Job Title:	
Name of Responsible Manager:			
Planned Completion Date: (Specify an appropriate and realistic date)		Signature:	
Reviewed by (Name of NCR Issuer or Issuer Line Manager)	Date:	Signature	
Corrective Action(s) (To be completed by Responsible Manager):			
Please insert details of the Corrective Action to be taken to prevent recurrence of the identified Non-conformance.			
Proposed by:		Job Title:	
Name of Responsible Manager:			
Expected Timescale: (Specified date; monthly; periodic; on-going; etc.)		Signature:	
Reviewed by (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 (Select as applicable)	Yes ☐ 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: (Lead Auditor, Quality Manager or other Senior Manager as per applicable NCR Procedure)			
Name:		Date:	
Job Title:		Signature:	

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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		<i>E.g. Fatality, Injury, major oil spill, social unrest, outbreak of violence, labour strikes etc.</i>	
Detailed description of incident (attach photos if needed)		<i>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.</i>	
Describe victims and damage		<i>Fatalities (including number deceased and differentiating between employee/ contractor fatalities and members of the public). Number injured (mention hospitalizations/ loss of limb). Number of injured in the community (if any). Loss/ damage to company facilities or operating environment. Environmental damage (e.g. water pollution, etc.).</i>	
Describe immediate response		<i>Which immediate activity was taken? E.g. construction activities interrupted, first aid given, injured person taken to hospital, police informed, task force implemented etc.</i>	
Describe long-term response		<i>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.</i>	
Incident Report Approval			
	Position	Name	Date
Prepared by			
Approved by			

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

- 1 Scope of the Contractor's ESMP General
- 2 Normative references
- 3 Terms and definitions
- 4 Context of the Project
- 5 Leadership and commitment of the Contractor's Top Management
- 6 The Contractor's ES Policy
- 7 Organizational roles, responsibilities and authorities
- 8 Consultation and participation of workers
- 9 Actions to address risks and opportunities specific for construction site
- 10 Resources
- 11 Competence
- 12 Awareness
- 13 Communication
- 14 Documented information
- 15 Operational planning and control
- 16 Emergency preparedness and response
- 17 Monitoring, measurement, analysis and performance evaluation
- 18 Internal audits
- 19 Management review and reporting
- 20 Incident, nonconformity and corrective action
- 21 Continual improvement

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Annex no. 5 Biodiversity Assessment Report

Link:

https://crstraseni.md/media/files/files/studiul_de_evaluare_a_biodiversității_906210.pdf